

FINANCIAL TIMES

World News

Jaruzelski decides to stand for presidency

An end to the immediate Polish political crisis appeared in sight as General Wojciech Jaruzelski, the Communist Party leader, announced he would, after all, stand today for election to the post of President.

Rebuff for US offer

Dubai lawyers said they were advising families of those killed when the USS Vincennes shot down a civilian aircraft to refuse six-figure payments from the US Government and seek up to 15 times as much in American courts.

Students under fire

El Salvador's armed forces tightened their grip on the national university after at least nine students were wounded when soldiers opened fire during a protest.

Mandela not hopeful

Nelson Mandela, the jailed African National Congress leader, does not expect to be released this year, Page 4

Tokyo support falls

The popularity of Japan's ruling Liberal Democratic Party has slumped to a new low only days before a crucial national election, Page 4

Progress on ban

The US and the Soviet Union have made substantial progress on a draft treaty banning chemical weapons, but problems remain over verification, Page 6

Fresh Natal violence

An unnamed black woman, who was pulled off a bus, shot and then doused with petrol and burnt to death, was one of 24 black victims of violence in Natal, Page 4

Row over rail pay

The UK Government rounded on the country's main rail union for voting to go ahead with its fifth 24-hour strike after rejecting an improved pay offer, Page 20

Bush boosts Labour

US President George Bush met Dutch political opposition leader Mr Wim Kok, in a gesture that is seen as enhancing the credibility of the Labour Party, Page 2

SA peace move

Regional peace moves in Southern Africa take another step forward today when Mr FW de Klerk, leader of South Africa's ruling National Party flies to Maputo for talks with President Joaquim Chissano, Page 4

Dissident arrested

China said police in Shanghai arrested Yang Wei, a prominent US-educated dissident who was released from prison last January.

Typhoon hits HK

Hong Kong's streets were virtually deserted at the start of the normal rush hour after Typhoon Gordon swept into the southern coast of China injuring 29 people.

Iran executions

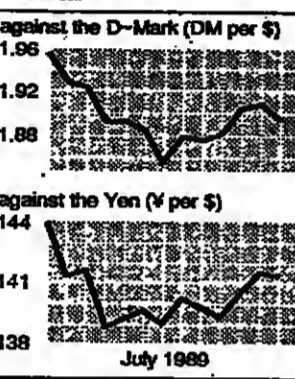
Iran banned 13 drug dealers labelling them "merchants of death" and bringing this year's total to 700.

Business Summary

Brussels company law may face EC block

Controversial plans for a European company statute, which would allow cross-border mergers to incorporate as EC companies, meet a potential blocking minority of EC governments in the first formal ministerial response to the scheme. West Germany, Britain and the Netherlands gave varying sceptical reactions to the plan, Page 20

THE DOLLAR fell sharply against the D-Mark after disappointing US trade figures. The US unit had moved firmer during the morning and broke through resistance levels at



DM1.9170 and DM1.9200. The dollar's decline against the yen was less pronounced as traders remain wary ahead of Sunday's elections. Currents, Page 33

IBM: Boosted by higher worldwide demand across its wide product range, the computer industry leader turned in sharply higher earnings for the second quarter recovering to net profits of \$1.34bn, or \$2.31 a share, Page 21

THE Philadelphia Stock Exchange disclosed that it was in exploratory talks with the American Stock Exchange and two other major US exchanges with a view to a possible merger, Page 21

REGULATIONS proposed by the US Treasury are likely to force foreign businesses for the first time to seek US government approval for American mergers and takeovers before deals are concluded, Page 3

PRUBACHE Securities agreed to buy the branch network of Thomson McKinnon Securities, a move which will make it the fourth largest US retail brokerage firm, Page 24

ROTHSCHILD Group, banking and investment concern, marked the launch of its new Italian subsidiary, Rothschild Italia, by announcing a £112.5m (\$31m) fund for financing management buy-outs and investments, Page 25

RATE of growth of new car sales in West Europe surged again in June with an estimated jump of 5.1 per cent to around 1.179m, Page 2

GREECE'S new Government has asked Demosin Mines for an extension of 30 days to give it time to consider making an offer for the Canadian company's controlling stake in the North Aegean Petroleum Company, Page 22

COMMERCIAL foreign borrowings planned for this year by the Industrial Development Bank of India will total \$4.2bn (\$79.7m), Page 26

CARIBBEAN: Members of the Caribbean Economic Community (Caricom) have agreed to establish a regional capital market, Page 25

WEYERHAEUSER, US forest products group, reported a modest advance in second quarter earnings, Page 24

GOLD: Results from Randfontein and Western Areas, the two operating gold mines managed by the JCI group, highlighted difficulties faced by South Africa's gold mines, Page 23

GEC and Agnelli join Goldsmith in battle for BAT

By Nick Bunker in London

GEC, the UK electronics group, and Italy's Agnelli family last night entered the £12bn (\$21bn) bid battle for the BAT Industries of Britain by throwing their weight behind the assault on the tobacco-based multinational by Sir James Goldsmith's Hoylake group.

Their participation, which is likely to electrify stock markets this morning, means that two of Europe's leading industrialists, Mr Gianni Agnelli and GEC's Lord Weinstock, have lent their authority to the attempt to take control of BAT and break it up by disposing of

its retailing, paper and insurance interests.

The line-up of forces ranged against BAT, announced last night after the London Stock Exchange's early close because of the country's one-day national rail strike, now comprises GEC, Banque Paribas, the Swiss-based Pargesa group, the Rothschild et Cie banking empire and the Agnelli family's IPI International holding company.

Mr Patrick Sheehy, chairman of BAT, said last night: "We thought that GEC had better things to do. We assume

that this means that Lord Weinstock would not resist a highly leveraged bid for GEC."

Rumours that Pargesa, GEC, IPI and Paribas would join the battle for BAT on Sir James's side began circulating over the weekend, but with Lord Weinstock declining to comment on Sunday the City of London had been sceptical about his involvement.

In another sign of the huge stakes now involved in the battle for BAT, the largest-ever takeover in the UK, it has emerged that Sir James's merchant bank, Hambros, will

receive a £30m payment from Hoylake if it succeeds in the bid.

As one of the first indications of the scale of the rewards intermediaries expect to make, merchant bank Hambros will receive £5m even if the bid fails.

Neither figure has been made public by Hambros or the Bermuda-based Hoylake in the UK. However, both are contained in hundreds of pages of submissions which Hoylake has had to file with insurance commissioners in the nine states of the US, headed by

California, Texas and Arizona, which have to approve any change in the ownership of Farmers Group BAT's US insurance subsidiary.

The filings contain some information which Hoylake wished to keep confidential. State laws require, however, that the filings should be freely available, because the public in most US states has a specific legal right to contribute comments to regulatory deliberations about insurance company mergers and takeovers.

The filings also reveal that the French-based Paribas

group has provided \$65m of loan finance to aid Hoylake. Paribas's announcement two days ago that it was holding advanced discussions about becoming an equity investor in Hoylake saddened BAT, because it obtained a listing for BAT on the Paris stock exchange in 1985.

The US regulatory filings also show that banking subsidiaries of Paribas in Luxembourg and the Bahamas helped fund about half of Hoylake's purchases of BAT shares before the announcement of the bid on July 11.

Soviet miners stay out on strike despite concessions

By Quentin Peel in Moscow

STRIKING Siberian miners refused to return to work yesterday, despite a string of concessions by the authorities, including a decision to ship thousands of tonnes of urgent food supplies to their region.

Soviet television last night showed angry coal miners in the Kuznetsk field in southern Siberia rejecting the concession as "half-baked" and demanding "radical reform."

Their refusal to end the nine-day stoppage, which involves more than 150,000 workers, came despite an appeal by their strike committee to return to work.

Meanwhile, the strike continued to spread, with 30 pits in the Donetsk coalfield of the Ukraine backing the Siberian miners' demands.

The government concessions were spelt out by Mr Nikolai Slynukov, the Politburo member sent by President Mikhail Gorbachev to negotiate a solution, at a series of mass meetings yesterday and the night before.

They include substantial wage rises for night shifts, longer holidays and a doubling in the wholesale price of coal payable directly to the pits.

He also promised genuine management autonomy for pits with freedom to set their own production targets and to sell their own coal on the international market if they produce more than required for state contracts.

The deal includes a sharp increase in the supply of food and consumer goods to the Kuznetsk region - including 10,000 tonnes of sugar, 3,000 tonnes of detergent and soap, 6,000 tonnes of meat, 5m cans of condensed milk, 1,000 tonnes of tea and 100 tonnes of coffee

and cocoa - a graphic illustration of exactly the shortages which have sparked off the industrial unrest.

In Prokopyevsk, the main mining town in the Siberian field, some 90 per cent of all industrial workers were also reported to be out in sympathy.

The strike, by far the most serious unrest since Mr Gorbachev came to power and the most serious to be reported since the 1920s, has galvanised the Soviet authorities.

Mr Slynukov, who is responsible for the economy and social affairs, admitted that his first hours in the region had "convinced us that the region has many problems."

"People have lost patience and composure," he said. "We understand you. We shall not limit ourselves to half-measures."

The concessions appear to meet almost all the miners' concrete demands. However, many mass meetings have gone further to demand political measures in Moscow, including an emergency session of the new Congress of People's Deputies, to consider the state of the mining industry, and to debate constitutional reforms.

The government concessions are certain to be expensive, especially the doubling in the pithead price for coal, when the state budget is already running a deficit of about 20 per cent of spending.

There was no indication whether the increased price would be passed to consumers



A Soviet coalminer shouts at a speaker during a strike rally in Prokopyevsk. The strike has spread from Siberia to the Ukraine

GEC, Plessey join forces to apply for UK telecoms licence

By Hugo Dixon in London

THE GENERAL Electric Company and Plessey, the two British electronics companies which have been locked in a takeover battle for nine months, yesterday announced that they were making a joint application for one of the UK's new personal communications licences.

The new licences, due to be awarded later this year, are intended to compete with the country's existing mobile and fixed telecommunications networks, and are expected by many to become a large source of profits early next century.

The decision to join forces in a consortium with BellSouth, the large US telecommunications group, is the latest sign of a thaw in the relationship between GEC and Plessey.

Plessey indicated earlier this week that it was willing to reopen talks with GEC on the wider aspects of the takeover bid, although both parties stressed that the current initiative was unconnected with the takeover battle.

Mr Brian Meade, managing director GEC Telecommunications Private Systems, said the joint application was "not yet distinct."

Mr Philip Parker, Plessey director of corporate development, said the new consortium had "a life of its own, irrespective of any changes in control."

"The logic of us coming together was inescapable," Mr Meade added, pointing to the benefits of pooling the companies' technological expertise with the operational experience of BellSouth. Both sides dismissed speculation that the reason for joining forces was that two rival applications would have not been considered seriously in view of the takeover battle.

Mr Michael Armitage, an analyst at Morgan Stanley, said: "GEC and Plessey separately probably would have had no chance of winning a licence. Now, however, they have to be regarded as the front-runners."

together follows a period of considerable bitterness in the relationship between the two companies, with Plessey having accused GEC of bad faith, after peace-talks collapsed only two weeks ago.

There had been contact between the two companies over the past month in an attempt to set up a link, but, according to Mr Parker, it was only after a telephone conversation last Wednesday between Lord Weinstock and Mr Stephen Walls - respectively, GEC's and Plessey's managing directors - that "whatever blockage there might have been in the eye of the beholder was removed."

Plessey and GEC will each have 30 per cent of the consortium, while BellSouth will have 40 per cent. A further 20 per cent is being kept on the side for additional partners.

None of the three partners would spell out how they would construct a network if they were awarded a licence. Lex, Page 20

Nairobi turns heat on ivory trade

By Julian Ozanne in Nairobi

IN THE HEAT of the midday African sun President Daniel Arap Moi of Kenya strode across the rolling grasslands of the Nairobi National Park to a spot where 2,000 elephant tusks, worth £2m, were piled into a pyramid.

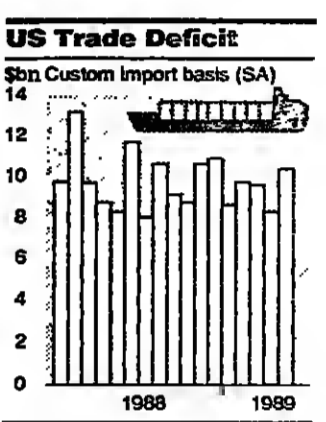
A military brass band struck up the national anthem as the President marched down a red carpet from the long file of Mercedes-Benz and Pengeots. Policemen in khaki uniforms and pith helmets, carrying swagger sticks, stood to attention.

After a short speech attacking the illegal ivory trade the President grabbed a long, flaming torch and set the 12-ton ivory stack alight.

A mood of euphoria and excitement spread across the assembled Cabinet ministers and elephant experts as the first tusk caught fire. Wildlife enthusiasts with badges declaring "Only elephants should be allowed to wear ivory" cheered and posed before the fire for cameramen.

This orchestrated publicity gesture, held before the international press, was the latest move by the Kenyan Government in support of a worldwide ban on the trade in ivory in an effort to halt the crippling, illegal poaching of elephants.

The spectacle was co-ordinated to accommodate a live television transmission for Good Morning America, the US breakfast-time show. South African-based foreign correspondents, usually banned from entering Kenya, were given special exemption to



US trade deficit widens to \$10.24bn

By Anthony Harris in Washington and Janet Bush in New York

THE DOLLAR fell sharply yesterday on the announcement that the US trade deficit widened to \$10.24bn in May from a revised \$8.29bn in April. The US currency had been rising strongly on market projections of a \$9.1bn deficit. News of the highest monthly deficit since December sent it down but it then stabilised and attempted to move upwards.

Other US financial markets were reassured, however, by the details of the figures. The mood is dominated by whether the US Federal Reserve will soon initiate a further easing in monetary policy and the trade figures were not seen as an impediment to easier credit conditions.

A rise of \$1.7bn (4.3 per cent) in imports was responsible for most of the month's change in the deficit and three-quarters of this was due to higher oil prices (\$0.5m) and higher shipments of capital goods (\$0.8bn).

MARKETS table with columns for Sterling, Dollar, Stock Indices, and Gold.

CONTENTS table listing various news items and their page numbers.

GUINNESS FLIGHT THE 1992 FUND YEAR 1: UP 29.8%* DARE YOU MISS YEAR 2? advertisement with contact information.

EUROPEAN NEWS

W German trade with Communist countries soars

By Andrew Fisher in Frankfurt

WEST GERMANY'S trade with Communist countries has risen sharply this year as they seek to modernise their industry...

Soviet coal strike threatens to halt power stations

By Quentin Peel in Moscow

THE IMPORTANCE of coal as an energy source for the Soviet economy has steadily declined in recent years...

district heating schemes. No reliable statistics on the effect of the strike have been published...

The Donets basin in the Ukraine, the oldest and largest coalfield, which began to come out in support of the Siberian miners last Saturday...

They are already among the highest-paid workers in the Soviet economy. Two years ago the average miner's monthly wage was Rs450...

They also get notably better annual holiday, and access to holiday homes, tourist camps and sanatoria than other industrial workers.

The greatest problem seems to be that their living conditions are so bad that they cannot spend their higher wages...

Red faces in Venice over Pink Floyd

By John Wyles in Rome

NOBODY DIED, nobody drowned, no historic building was seriously damaged, but the Feast of the Redentore in Venice last Saturday will go down in history...



General Jaruzelski (left) pictured with Communist Deputies yesterday when he announced he would stand for President

Jaruzelski throws hat in the ring

By Christopher Bobinski in Warsaw

THE POLISH Communist Party leader, General Wojciech Jaruzelski, told his parliamentary Deputies yesterday that "new circumstances" had changed his mind about standing for President.

SPD would raise energy taxes by almost third

By David Goodhart in Bonn

WEST GERMANS will have to pay 30 per cent higher energy taxes if the Social Democratic Party (SPD) wins power at the end of next year.

European car sales defy gloomy forecasts

By Kevin Done, Motor Industry Correspondent

THE RATE of growth of new car sales in West Europe spurred again in June with an estimated jump of 5.1 per cent to around 1.179m.

WEST EUROPEAN NEW CAR REGISTRATIONS JANUARY-JUNE 1989

Table with columns: Volume (Units), Volume Change (%), Share (% Jan-Jun 89), Share (% Jan-Jun 88). Rows include Total Market and various manufacturers like Fiat, Volkswagen, Opel, etc.

volume carmaker in the first half with a jump of 9.7 per cent to 794,000. It boosted its market share to 11 per cent from 10.6 per cent a year ago helped by competition" and worsened unemployment in West Berlin which is nearly 10 per cent.

Bush gives Dutch Labour party leader a boost

By Laura Raun in The Hague

PRESIDENT George Bush yesterday met the most influential leader of the Dutch political opposition, Mr Wim Kok, in a gesture that is seen as enhancing the credibility of his Labour Party.

Union warning over E Berlin workers

By Leslie Collin in Berlin

WAGES paid to East Germans working on West Berlin construction projects are undercutting the pay for local workers and putting West Berliners out of work.

Aeroflot applies to join IATA

By Leslie Collin in Berlin

THE Soviet airline Aeroflot applied yesterday to join the 187-member International Air Transport Association, IATA.

Mr John Brindley, for IATA, said acceptance was a formality and that Aeroflot, the largest non-IATA airline in the world, should become a member within two or three weeks.

Mr Mieczyslaw Rakowski, the present Prime Minister, is also still in the race, but he, too, is now opposed to immediate rises despite pressure from his own ministers appalled by a mounting budget deficit.

Autumn clouds loom over sun-kissed Turkish premier

Prime Minister Turgut Ozal's optimism is not borne out by the figures, reports Jim Bodgener

A WAVE of excitement rippled through the Turkish press on Monday at the end of a languorous Bayram holiday when Mr Turgut Ozal, the Prime Minister, invited senior journalists down to the Mediterranean resort of Side.



Ozal: holiday news conference

In addition, the government has increased support prices for farmers, and recently pledged extensive relief for hard-pressed farmers on their debts to the state-owned Ziraat Bank (Agricultural Bank).

to meet the salary increases alone, fresh money was issued to the tune of TL1.5 trillion (million million) (2433m), while M-1 money supply reached a record high of TL8 trillion last week.

Mr Demirel and the DYP have concentrated on the cities, building on strongholds in the countryside. His attempts to improve his image in the business community - which associates him with the chaotic late 1970s when he was prime minister - are enjoying some success.

Baykal and left-wing deputies. Many of the latter come from the east, where grievances have been fuelled by the government's continuing refusal to recognise the existence of a Kurdish minority.

Other scenarios include buying off Mr Demirel with the presidency. The easy way out in the short term simply could be to extend President Evren's term.

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WORLD TRADE NEWS

Problems of tariff cuts still unsolved

By William Dullforce in Geneva

A FUNDAMENTAL difficulty in achieving trade tariff cuts in Uruguay Round talks remained unresolved yesterday after the US persisted in a different approach to that of the European Community and Japan.

Brussels and Tokyo pressed to the group negotiating on tariffs, formulae which would result in co-ordinated reductions in customs duties for all industrial products.

The US said it was submitting to 14 of its trading partners, including the EC and Japan, requests for tariff cuts on given products, including some agricultural and natural resource-based items.

US insistence on negotiating tariff cuts individually on a request-and-offer basis is dictated by its desire to protect exposed domestic industries, such as textiles. Almost all other countries favour a formula approach. The US attitude will at the least complicate tariff reductions.

The EC and Japan proposed different formulae but both aimed to meet the target of a 33 per cent average tariff cut set by trade ministers at their mid-term review of the Round in December.

Some Third World negotiators voiced reservations about the EC's categorisation. It called for industrialised and more advanced developing countries to reduce tariffs with a base (starting) rate of 40 per cent or higher to a ceiling of 20 per cent. For rates of less than 40 per cent a formula would be applied that would cut a 20 per cent rate to 12 per cent.

Least advanced countries would contribute "within the limits of their capabilities", while the other developing countries would be expected to cut all rates of more than 35 per cent to 35 per cent and would be offered the possibility of cutting duties of 35 per cent or less in bilateral negotiations.

The EC stipulated that all cuts in duties should be "bound", meaning that governments would undertake not to raise them again. Some developing countries objected.

Japan, HK want Gatt dumping code revised

By William Dullforce in Geneva

JAPAN AND Hong Kong, stung by EC duties on rapidly growing consumer and high-tech electronic exports, are urging revision of Gatt's anti-dumping code.

Tokyo has proposed a list of changes to the Uruguay Round group discussing Gatt code improvements. The most important would tighten the procedure governments imposing anti-dumping duties must follow in calculating the difference between the price of the allegedly dumped product and its "normal value" or domestic price.

Last week, when the EC announced provisional duties of 6.4-33.9 per cent on imports of compact disc players from 15 Japanese and S. Korean manufacturers, Sony claimed the calculations were wrong. Brussels has been accused of "imaginative licence" in assessing alleged dumping margins on imported products.

The Gatt code states the dumping margin is to be determined "by comparison with the cost of production in the country of origin plus a reasonable amount for administrative selling and any other costs and for profits". But Japan wants this changed to specify that the value should be the sum of costs of production, selling

costs, general and administrative expenses and any other costs of the exported product; and, profit normally realised on sales of products of the same general category in the domestic market of the country of origin.

Japan also aims to reduce scope for trade "harassment" through EC procedures, which, they say, do not permit an effective counter-case.

Hong Kong, which has undergone eight EC anti-dumping actions in the past 18 months, urged substantial changes in the Gatt code, to stop governments acting against normal price competition.

It argued that anti-dumping provisions, originally introduced under domestic competition or anti-trust law, have become protectionist systems for curbing import competition. Imprecision in the existing code allowed authorities calculating dumping margins to reach figures higher than actual costs, for example, by fixing arbitrary profits.

The EC and US have sought different changes to the Gatt code - to include provisions to stop exporters circumventing anti-dumping rules through "screwdriver" assembly plants in importing countries.

Soviet travellers light on consumer heaven

Poles turn border crossing into a 'special' trade centre, writes Judy Dempsey

AS EAST European and Soviet economists ponder the convertibility of their currencies, a novel experiment in trade is taking place in the north-eastern Hungarian town of Zahony, which demonstrates the market value of these currencies.

For years, this small Hungarian-Soviet border crossing was eyed enviously by Soviet citizens, particularly the 200,000-strong Hungarian minority who live in Uzhgorod, a region just across from the Hungarian border.

They had heard about the luxuries in Budapest. But they had also heard how their Hungarian cousins flocked to Vienna to stock up with every imaginable consumer item.

But while Vienna may well epitomise the Western capitalist world for the Hungarians, it is nothing compared to Zahony, which is fast becoming a consumer's haven for Soviet travellers, thanks to new travel regulations recently introduced by the Soviet authorities.

And, most important of all, thanks to the ingenuity of the Poles who have transformed the place into a mini-trade centre.

Activity intensified last March, when the border crossing at Zahony was almost completely opened up. Soviet citizens living in the 30-km border zone, can now cross as many times as they like into Hungary.

They require no exit visa, no visa from the Hungarian authorities, no invitation, just a valid passport which, however, cannot be used for any Western country.

Soviet citizens have jumped at the opportunity to travel. In the first three months, 1.5m crossed into Hungary. So great was the traffic that the Hungarian and Soviet authorities opened up three new border crossings south of Zahony.

"Yesterday, we had 30,000 come through, and that's just one-way traffic from the Soviet Union," said a tired Hungarian border guard. "You should have been here two months ago. Sometimes, we were getting 80,000 a day".

But there is a catch to these new liberal travel regulations. Any Soviet citizen travelling across to Hungary can only buy from the authorities Roubles 30-worth of forints. That amounts to 570 forints, about \$3.

That is hardly enough for consumer-hungry Soviet citizens who want to buy the goods in Zahony, then travel down to Debrecen, the main city in eastern Hungary.

Not that there is much to buy, officially that is, in this shambolic settlement. Official exchange and tourist offices are difficult to find, if non-existent.

The same applies to the dearth of department stores and other consumer shops. A Western visitor would find few reasons to linger in this corner



Poles, he was selling them out of the boot of his Lada in a field which the Hungarians had allotted (predictably, for a small fee to each car-owner) to this thriving free market.

The spectacle defies imagination. Each day, starting early in the morning, the Poles spread out their wares on the top of the boots of their Russian-made cars.

Everything, from razor blades and underwear, to hack-saws, screwdrivers, perfumes, shampoo and deodorants, and of course cognac, is available to the Russians, many of whom think this is a version of a consumer's paradise.

But the problem is that the Russians do not have enough forints to buy these goods which are in short supply at home.

Everything is sold in forints. And if the Russians dared to offer zlotys, the Polish units of currency, the Poles would pull a most unpleasant face.

"I wouldn't sell or buy zlotys against any East European currency," says Jacek. "It's rubbish money. Give us the forint or the rouble. But really, the forint is the only real 'hard' currency left in the bloc," he opined, sounding like a banker.

"Sure, forints, we want forints," interrupts Leszek, who was busy counting his wads of rouble notes. Here were two real professional black marketeers with whom the Soviet tourists had to contend.

During the afternoon, Soviet tourists came up and argued over the price of the shirts with Jacek, while Leszek negotiated the exchange rate.

On the official market, Soviet citizens can buy 16 forints for one rouble. The profit-conscious Poles offer 8 forints to the rouble. The Russians have few qualms about the rate. They want the goods. They need the forints.

And besides, since the Poles monopolise both the consumer and money market in Zahony, the Russians have little choice.

The Hungarian "clerks", who provide refreshments and sanitary facilities, turn a blind eye to the transactions.

Not content with trading with the Russians in Zahony, the Poles afterwards try to sell their roubles to Hungarians who want to visit their relatives in Uzhgorod, or to Westerners passing through Debrecen.

More often than not, some will eventually wend their way to Vienna and trade their roubles at a black market centre near the Danube. That, so far, is a place out of bounds to Soviet citizens, who, at the moment, seem content with Zahony, their first taste of quasi-Western consumerism.

But if the Poles have their way, and if Soviet travel restrictions lift even further, the Poles will be there at each border crossing, providing the goods and having a say in the "real" value of the East European currencies.

US warning to foreign investors

NEW REGULATIONS proposed by the US Treasury are likely to force foreign businesses for the first time to seek US government approval for American mergers, takeovers and other investments before deals are concluded, Nancy Dunne reports from Washington.

The regulations, required by last year's Trade Act under the "Exon-Florio" provision, give the US President broad discretionary authority to block or suspend mergers, acquisitions and takeovers on national security grounds if they result in control by foreigners.

The President could also act when acquisitions by US interests are financed by foreign banks.

The US has traditionally opposed government screening of foreign investment. Thus, the Treasury has made registration of investments voluntary in a bid to minimise the impact on business.

Mr Elliot Richardson, chairman of the Association for Foreign Investment in America (AFIA), said the regulations were so vague that foreign investors might feel constrained to seek government approval rather than risk forced divestiture.

"To a large extent, the Treasury has had to square the circle in developing a system that meets the contradictory legisla-

tive impulse both to have and yet not have a screening system," Mr Richardson added.

The proposed rules do not define "national security" or spell out a threat to national security. They imply the following sectors would be safe from action: toys and games, food products, hotels and restaurants and legal services.

"These exclusions imply enormous inclusions and would make it very difficult in the case of most acquisitions to rule out the possibility that Exon-Florio will apply."

The regulations would create such widespread uncertainties that even joint venture partners with US companies could feel forced to seek approval.

Italy and Greece obstruct Lomé talks

By David Buchan in Brussels

THE PROSPECT of a relatively smooth re-negotiation of the Lomé Convention, the European Community's five-year aid and trade pact with 66 African, Caribbean and Pacific (ACP) countries, was last night shaken by protectionist demands from Italy and Greece.

At a meeting of development ministers stretching into the small hours of yesterday morning, the two Mediterranean countries balked at increases in imports of ACP figs, peaches and apricots, and so effectively prevented the European Commission from putting a fresh proposal to the ACP states

Italy and Greece obstruct Lomé talks

By David Buchan in Brussels

until early autumn. Instead of having all summer to digest the Community's bargaining position on trade issues, negotiators for the ACP states may now only get it after EC development ministers are next due to meet on October 2-3, barely a week before talks start in earnest on October 10.

The trade aspect of the Lomé Convention re-negotiation splits the Community. Northern countries like Britain urge generosity in trade rather than aid, while southern EC states argue the Community should concentrate on increasing grants and soft loans - which

amount to Ecu8.5bn (\$5.7bn) in the current 1988-90 Lomé treaty - rather than let in more ACP products which often compete with their own.

The trade row overshadowed the makings of a compromise over geographical extension of the Lomé convention to cover the Dominican Republic and Haiti. This issue has pitted Spain, which has made the inclusion of at least one Spanish-speaking territory a virtual condition of its agreement to Lomé re-negotiation, against the UK which has come under heavy pressure from the English-speaking Caribbean to ensure the inclusion of these

islands does not hurt its interests, and that the Dominican Republic is not a Trojan Horse for other Latin Americans to enter the Lomé convention.

UK diplomats said yesterday they were now satisfied that a form of words had been found to limit further geographical extension of Lomé in the Caribbean, but not necessarily elsewhere. The key remaining issue for the UK was to ensure that the Dominican Republic, as a sizeable sugar producer (which has renounced membership of the EC's special sugar protocol), did not push traditional Caribbean rum exporters out of the EC market.

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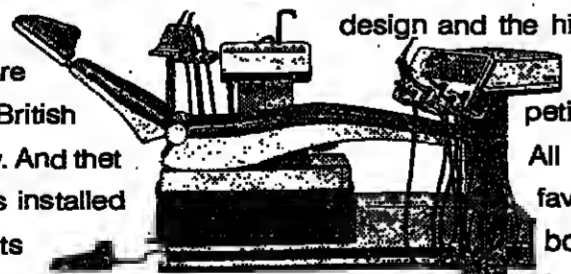
That's why staff dental care plays an important part in British Airways' health philosophy. And that is why British Airways has installed Siemens equipment at its Dental Health Centre at Heathrow Airport.

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OVERSEAS NEWS

RECORD CURRENT ACCOUNT DEFICIT

Australia's economic outlook darkens further

By Chris Sherwell in Sydney

AUSTRALIA'S gloomy economic outlook darkened further yesterday after statistics confirmed a record current account deficit of A\$17.4bn (£3.3bn) for the financial year which ended last month, worse than the most pessimistic expectations.

Preliminary monthly figures from the Bureau of Statistics put the June deficit at A\$1.6bn, at the higher end of analysts' forecasts. The bureau also revised the May figure upwards by A\$500m to a record monthly figure of A\$1.8bn.

The overall 1988-89 figure was equivalent to 5.3 per cent of gross domestic product, or around double the country's estimated sustainable level. It compares with A\$12.3bn the previous year and is an embarrassing 67 per cent higher than the optimistic A\$9.5bn deficit projected in the Labor government's Budget last August.

Despite the government's year-long attempts to dampen domestic demand through tighter monetary policy, some economists say the monthly figures - now running at an annual rate of more than A\$1.9bn - foreshadow another record deficit in the year just started.

With few signs of any underlying improvement, the present high interest rate regime appears set to continue indefinitely, with the ever-growing risk of an outright recession instead of a more desirable "soft-landing." Prime borrowing rates currently stand at 20 per cent and home loan rates at a record 17 per cent.

The opposition coalition cited yesterday's figures as "further evidence of the government's economic mismanagement," but Mr Paul Keating, the Federal Treasurer, insisted he would stick by his present policies.

The foreign exchange and domestic money markets absorbed the figures calmly, having earlier taken into account the possibility of another large monthly number. Bill and bond yields firmed and the Australian dollar finished at 59.1 on a trade weighted basis (May 1970=100), up from 58.8.

The details behind yesterday's figures were revealing. In its visible trade, Australia notched up a record deficit of A\$4.2bn for 1988-89, far ahead of the previous record of A\$3.5bn in 1985-86, when the overall current account deficit

Mandela denies release imminent

By Anthony Robinson in Johannesburg

MR Nelson Mandela, the jailed African National Congress leader, does not expect to be released this year, his wife Mrs Winnie Mandela said after visiting him in a prison bungalow on his 71st birthday.

Asked whether he was optimistic about the chances of an early release Mrs Mandela said "Not at all. His exact words were 'there will be no release, definitely not this year.'"

Speculation that Mr Mandela, and possibly other jailed ANC veterans, would be released at some point after the September 6 general elections grew following his historic meeting with President P W Botha two weeks ago and his subsequent meetings with fellow prisoners in the 1984 Rivonia treason trial.

Such speculation has accompanied indications from the government that it is preparing the ground for negotiations after the elections. After an initial dismissal of the significance of the meeting with Mr Botha, black anti-apartheid groups anxious to avoid being pushed into negotiations without a clear strategy, have been debating their next moves.

Trade union, anti-apartheid and other opposition bodies have dampened exaggerated hopes of any quick solution to the country's complex political problems. They question the sincerity of the government's commitment to an early release of jailed leaders and the unbanning of the organisations they represent.



IN DESPAIR: LDP Secretary General Ryutaro Hashimoto fends off reporters after hinting at electoral disaster on Sunday

Japanese socialists overtake ruling party for first time

By Stefan Wagstyl in Tokyo

THE POPULARITY of Japan's ruling Liberal Democratic Party has slumped to a new low only days before a crucial national election is held on Sunday.

The opposition Japan Socialist Party has overtaken the LDP in popularity for the first time according to a poll published yesterday by the Nikkei Shimbun newspaper, Japan's leading business daily.

According to the survey, 37.8 per cent of voters support the JSP, against 25.8 per cent for the LDP. The LDP lost 7.1 percentage points compared with a similar poll a month earlier, while the JSP gained 2.1 percentage points.

The figures show that the socialists have made gains during the election campaign which got under way in earnest two weeks ago, while the LDP has lost ground. Voters have expressed concern about the Recruit affair and the sex scandal involving Mr Souseke Uno, the Prime Minister, but

the main issue has turned out to be the controversial consumption tax, introduced in April. The JSP has won support by promising to abolish the tax; the LDP has merely pledged to revise it.

Nevertheless, the Nikkei survey also showed that a large number of voters are uncommitted - many of them probably LDP supporters who may abstain in order to punish the ruling party, without casting a vote for the socialists.

Analysts said that the LDP would lose its majority in the Upper House of the Diet if the results of the poll were reflected in Sunday's vote.

The elections will be held for 126 seats in the Upper House of the Diet, 50 of which are contested by nationwide proportional representation and the rest by separate prefectural constituencies. The public elects half the 252 members of the Upper House every three years.

Investors told to be cautious

By Andreas Utermann

INVESTORS are advised to reduce their equity exposure in Australia in a report by Citicorp, Scrimgeour Vickers, the Australian holding arm of the US Citicorp group, to be published today.

The firm expects a depreciation of the Australian dollar in the next four to six weeks from 76 US cents to 70 US cents at best and to an increasingly likely 60 US cents at worst.

The reasons cited for this are: an estimated 12 month cumulative A\$20bn current

account deficit; an end to support of the Australian dollar due to the forecast peak in short term interest rates by the end of 1989; increased downward pressure on commodity prices; and volatility caused by the uncertain future level of the US dollar.

The report follows yesterday's announcement of a record current account deficit of A\$17.4bn for the financial year which ended last month and intensifies worries among investors that Australia, with

De Klerk flies to Maputo

Regional peace moves in Southern Africa take another step forward today when Mr FW de Klerk, leader of South Africa's ruling National Party flies to Maputo for talks with President Joaquim Chissano, Our Johannesburg Correspondent writes.

Mr de Klerk, accompanied by Mr Pk Botha, the Foreign Minister and senior officials, is making his first official visit to black Africa against the background of steadily improving relations between the two countries. He is also expected to meet the Kenyan President Daniel Moi who also arrives in the Mozambican capital today.

President Chissano yesterday signalled his desire for closer relations by confirming that his government was now convinced that Pretoria and its defence force was no longer assisting Renamo rebels.

'Betrayed' farmers plan revenge

A key LDP constituency is in revolt, reports Michiyo Nakamoto

WITH Sunday's elections to the Upper House of the Diet rapidly approaching, Japan's traditionally conservative farmers are in revolt against the ruling Liberal Democratic Party (LDP). For the first time, farmers are likely to vote against the party they have supported for 30 years.

In the once contented region of Shusho, on Shikoku, one of the four islands of Japan, interspersed between the quiet paddy fields and rows of fruit trees are countless plots of land studded with dead trees. They are what remains of the numerous mandarin orange trees that once covered much of the landscape in this area, and they are striking evidence of the changes that the liberalisation of Japan's orange market are already bringing about in this remote province 900km south-west of Tokyo.

Here farmers of the local agricultural co-operative or *noyko* are deserting the incumbent LDP member - a former government minister - and backing an independent.

The farmers are casting a protest vote against the LDP rather than expressing their outright support for any other party, such as the Japan Socialist Party, the leading opposition party that has benefited most from growing discontent with the LDP. Many do not think the policies of the opposition parties are realistic. But they are determined to express their unhappiness with the ruling party.

They are not alone. All over Japan traditionally conservative farmers who have been solid LDP supporters are voicing their discontent with the party. In 15 of the 47 prefectures, the youth divisions which are the most politically active groups of the *noyko* have decided not to back LDP candidates in the Upper House election.

The farmers are taking action against a party which many feel has betrayed them. To begin with, the LDP broke its promise not to open markets in beef and citrus fruits and 12 other agricultural products and has bowed to foreign pressure to do so in two years. Then came the passage of the consumption tax, the Recruit share sale scandal, and a sex scandal involving Mr Souseke Uno, the Prime Minister.

All this exacerbated a growing feeling in rural communities that farmers were being left out of government decision-making. Farmers believe that forcing the opening of agricultural markets was equivalent to making them pay for the country's trade surplus that aggressive manufacturing industries had brought about.

Discontent has been aggravated by what was seen as "farmer bashing" by the media, says Mr Fumiaki Aruga, general manager of the agricultural policy and planning department of Zenchu, the central co-operative of *noyko*. The media has portrayed Japanese farmers as inefficient and incapable of supporting themselves without the help of the government.

"The environment has been very bad for farmers in the past few years," he says.

The farmers of Shusho, an area with a mild climate, abundant sunshine and fertile soil,

known as Japan's "orange country," had lived a steady life off their land, growing rice, planting fruit trees, secure in their belief that nature and the ruling Liberal Democratic Party would take care of their needs. Recent government actions, however, have changed all that.

"We are burning with anger," says Mr Masatoshi Wada, director of the project planning division of Shusho *noyko*. "We have always supported the LDP in the past, but one thing after another has finally brought it home to us that the party is no longer on our side."

Mr Kiyotaka Fujii, a rice farmer and fruit grower who is head of the *seven-bu*, the political arm of the *noyko*, adds: "We decided that we had to take concrete action to show how we felt." The *seven-bu* is campaigning for Mr Osamu Ikeda, a local independent who is calling for a comprehensive review of farming policy and the abolition of the consumption tax.

Although Shusho farmers feel that liberalisation of the orange market will hurt their income, it is not so much the economic side of the issue that has brought the farmers to their feet. The government has offered handsome subsidies. What the farmers fear is that the government's policies and the media bashing which reveal a disrespect for agriculture as a means of living will convince young people that there is no future in farming, says Mr Wada. His own son, who returned to his hometown to succeed his father in the field after graduating from the



Sheikh Zayed bin Sultan al-Nahayyan, president of the United Arab Emirates, inspected a guard of honour with the Duke of Edinburgh at Buckingham Palace yesterday. He is likely to discuss arms sales and relations between Britain and Iran with Mrs Thatcher during his four day visit.

S African trade surplus rises

By Anthony Robinson in Johannesburg

EXPORTS boosted South Africa's trade surplus to R5.2bn (£1.1bn) over the first half of this year from R4.1bn over the same period of 1988.

According to preliminary customs figures, exports, boosted by a sharp rise in diamond sales, stronger agricultural exports and higher prices for a wide range of mineral products, rose R4.97bn to R27.57bn, while imports rose R2.7bn to R22.05bn.

Although exports, aided by rand depreciation, rose faster than imports the continued high overall level of imported goods, especially machinery and other capital goods,

implies that the 16 per cent rise in fixed capital investment last year goes on despite the beginning of a slowdown in domestic economic activity and consumption spending. Over the last six months the monetary authorities have raised key interest rates, toughened hire purchase terms and raised both taxes and petrol prices in an attempt to protect the balance of payments by curbing imports.

These politically unpopular moves are now starting to bite and economists expect a further improvement in the trade surplus over the second half of the year, sufficient to repay

Fresh surge of violence in Natal

AN UNNAMED black woman, who was pulled off a bus, shot and then doused with petrol and burnt to death, was one of 24 black victims of a fresh upsurge of violence in Natal, reported by police over the last few days, Our Johannesburg Correspondent writes.

Three other black youths were killed in the same village of Mqumalanga, near Durban, while the remaining victims were killed in a series of clashes between rival bands in several other townships in the Pietermaritzburg and greater Durban areas.

More than 2,000 people have died and tens of thousands more either maimed or made homeless in four years of conflict over control of land and people.

Money supply under control

By Stefan Wagstyl in Tokyo

THE rate of money supply growth in Japan stayed below 10 per cent in June for the second month in a row, providing strong evidence that the authorities are succeeding in restraining the expansion of the money supply.

According to figures published yesterday the money supply in June grew by 9.4 per cent compared with the same month last year. The figure for May was also 9.4 per cent, on a revised basis, compared with 10.2 per cent in April.

The Bank of Japan said it was satisfied that an increase in interest rates had undermined the upward momentum in the growth of the money supply. The bank raised the official discount rate by 0.75 percentage points to 3.25 per cent on May 31.

The central bank also forecast that the money supply would rise by about 9 per cent

Taiwan bank law comes into force

TAIWAN'S new Banking Bill, intended to open up banking to the private sector and clamp down on underground finance companies, comes into force tomorrow, writes John Elliott.

About ten of Taiwan's major business houses are expected to apply for licences to open banks in competition with four state-run banks. Foreign banks will also be able to enlarge the scope of their activities and take savings deposits and long term loans.

Pakistan prepares to embark on the privatisation trail

Christina Lamb in Islamabad examines the country's plans to sell off shares in profit-making public corporations

ON THE day Benazir Bhutto became Prime Minister of Pakistan, the faces of some of the country's richest businessmen were pale. They recalled the ruthless nationalisation programme of her father, Pakistan's first elected Premier, who took over all banks and major industries in one night in 1972.

Today the same faces are relaxed. In a complete turnaround from the socialist policies of the Pakistan People's Party of the 1970s, the emphasis now is on privatisation - a concept Ms Bhutto freely admits is one of the aspects she most admires from Mrs Margaret Thatcher's years in power in Britain.

Ms Bhutto's government is preparing to launch a privatisation campaign prior to selling shares in state owned corporations next year to raise badly needed revenue.

The five companies shortlisted for privatisation are the Sul Gas Transmission Corporations (North and South), Pakistan State Oil, Habib Bank and Pakistan International Airlines. The first flotation will take place in May.

The government hopes to raise Rs1.5bn (£45.5m) in time for the next budget in June, which must bring the deficit down from 6.7 per

cent to 5.5 per cent of GDP in line with an agreement with the International Monetary Fund.

With the government unable to raise revenue by taxes and many public sector corporations taking heavy losses, moves towards privatisation began in the last years of the late President Zia's military regime.

Since 1985, successive budgets have included Rs2bn disinvestment programmes, none of which has been implemented - partly because of constitutional and legal difficulties.

Many bureaucrats argue that loss-making units should be sold off - not the family silver

ties, but mostly because of bureaucratic resistance to losing control and the chance to wield patronage. Last July Dr Mehboob ul-Haq, then Finance Minister, set up the National Disinvestment Authority and began deregulation - for the first time allowing the private sector to buy and export cotton and rice.

When Ms Bhutto took over in

December, she immediately quashed fears of nationalisation by commissioning Rothschilds to do a report on the viability of an extensive privatisation programme.

The recently completed report says Pakistan is suitable for privatisation if it is handled properly.

The biggest reservation for Rothschilds was over the depth of the capital market. Moreover, Pakistan has one of the lowest rates of domestic savings in the world, at only 10 per cent - because of its unstable political situation, people prefer to invest in real estate.

Rothschilds have suggested a cautious, step by step approach, starting off by selling shares in one corporation next year and then two more the following year - a timetable which Ms Bhutto has accepted.

Health Asis Ahmad, Chief Economist at the Planning Commission, believes the depth of market is not the real issue. "The money is there, you can see it all around with huge houses and new shopping plazas springing up. The real problem is the image of these corporations as inefficient, corrupt, overstuffed."

He points out that a recent attempt to raise Rs1bn by selling bearer bonds in the country's biggest public sector corporation, the

giant Water and Power Development Authority, totally flopped, leaving the banks to buy them. "WAPDA does not have a good image. Nobody has confidence in it so why should they buy its bonds?"

Conscious of the experience of Thailand, which tried to sell off loss-making organisations which no one would buy, Mr Ahmad insists "it is vital that the first sale should be successful, that we begin with something with a good reputation and track record that will sell like hot cakes."

However, many bureaucrats, particularly in the Production Ministry, argue that "sick," or loss-making units should be sold off - not the proverbial family silver.

A big publicity campaign is planned, but Asis Ahmad, the Vice Chairman of National Disinvestment Authority, who believes "even if the best goods are put on offer, some further incentive may be necessary."

They are not so profitable as to attract the private sector. Why should people invest when they can put money in savings schemes which guarantee 15 per cent interest? He believes that the government should guarantee a 20 per cent dividend for the first five years until "people are share minded."

The government is now negotiating with Rothschilds for the next and most difficult phase of privatisation - implementation. The government will retain at least 51 per cent of the shares in each corporation floated and no one will be allowed to purchase more than 15 per cent. The Prime Minister is keen on strong employee participation on the Swedish model, but Mr Ahmad says "most workers are more interested in a pay rise than to be given shares."

The government hopes that privatisation will lessen corruption by increasing accountability and make corporations more efficient - run by people with experience in the field rather than civil servants or retired generals.

According to Hakim Ali Zardari, chairman of the Public Accounts Committee, last year public sector corporations sustained losses of Rs12bn. For example the National Shipping Corporation lost Rs2.64bn, the Pakistan Industrial Development Corporation Rs2.850bn and OGDC Rs2.140bn. Last month the Economic Co-ordination Committee, chaired by Ms Bhutto, decided to liquidate the National Construction Company which had suffered a loss of Rs5bn - the first time in Pakistan's history that a loss-making organisation has been folded.

Twelve of the 14 sectors in which the 69 public sector corporations operate are profitable, the losses occurring in the transport service and construction. In 1987-88 the mining and manufacturing sectors turned from loss to profit, though this year manufacturing profits almost halved. According to official figures, overall total post-tax public sector profits increased 606 per cent from Rs0.97bn to Rs6.65bn between 1988-87 and 1987-88. One of the biggest problems is overstaffing, likely to mean the loss of many jobs - something the government, already facing 25 per cent unemployment and high expectations, is eager to avoid.

Despite such fears, Asis Ahmad believes this time there is no going back. "Privatisation is the need of the hour and we are already in the nuts and bolts stages."

Benazir Bhutto: quashed nationalisation fears

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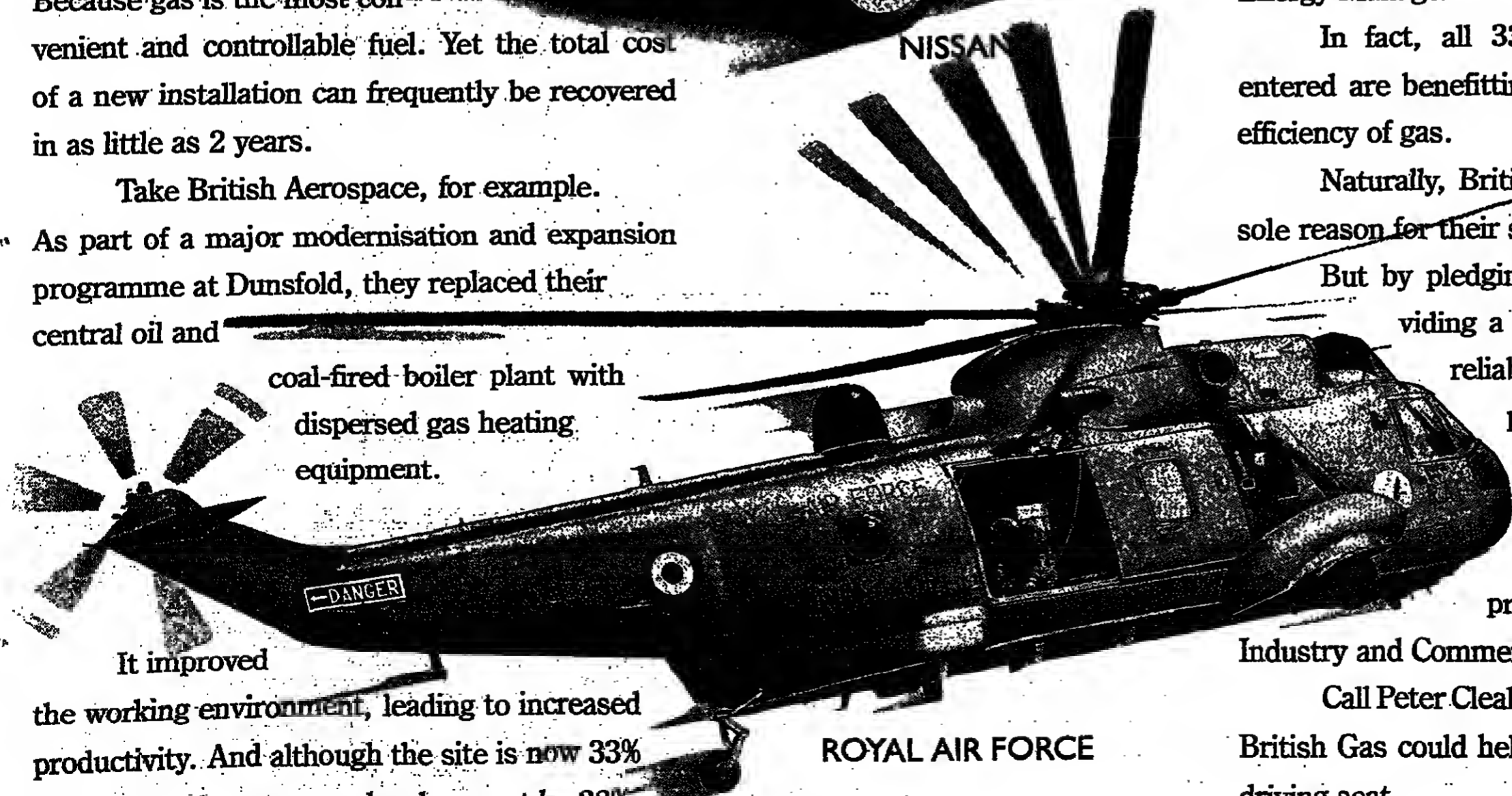
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ENERGY IS OUR BUSINESS

AMERICAN NEWS

1991 US budget deficit concern

By Anthony Harris in Washington

THE US budget deficit for next year will be only just above the target level on current trends, but the deficit ceiling for 1991 looks out of reach, according to projections released yesterday by the Administration.

The figures came in the White House's revised mid-term economic projections, which will be the basis for forecasting the 1990 fiscal deficit.

It is this forecast, due on August 25, which will determine whether Congress has kept within the limit of \$100bn, set by the Gramm-Rudman deficit reduction law, in its final budget decisions; Mr Richard Darman, the Director of the Office of Management and Budget (OMB), said yesterday that on present policies the target would be narrowly missed, but that the gap could be closed.

Growth is now predicted at 2.7 and 2.6 per cent for 1989 and 1990, compared with 3.5 per cent; Treasury bill rates at 8 and 6.7 per cent, compared with 7.4 and 5.5 per cent, and inflation (the GNP deflator) at 4.2 and 4.1 per cent compared with 3.7 and 3.5 per cent.

The deficit for the current year, which ends in October, is now forecast at \$148.3bn, down from \$164.1bn, reducing the cuts needed to achieve a \$100bn deficit in 1990. Current congressional policies are said to imply a projected deficit of \$110.5bn, just exceeding the 10 per cent leeway allowed under the Gramm-Rudman law.

The White House is campaigning for support for its proposed cut in the capital gains tax, which the Treasury claims would yield \$3.3bn in extra revenue and would bring the budget well within the target range; but the Democrats have rejected this as a concession to the rich and argue that any gains would be exhausted in the first year, making the task of achieving the 1991 target still more difficult.

The OMB report makes it clear that 1991 remains a grave problem. The Gramm-Rudman target is for a deficit of \$64bn, but current White House policies would produce a \$88bn deficit and those of Congress a \$150bn gap, according to the mid-term projections.

The new projections mark a large step towards a forecast for the economy which is consistent with the consensus, though they remain somewhat more optimistic. In both respects the revision follows the pattern of recent years. Dr Michael Boskin, the chairman of the Council of Economic Advisers, pointed out that the White House growth projections have in fact been too low in 1987 and 1988.

The changes are not all unfavourable from a fiscal point of view. While lower growth and higher interest rates will reduce revenue and raise outlays, the higher inflation assumption implies higher revenue in the un-indexed US tax system.

Salinas finds consolation in an electoral defeat

Richard Johns looks at Mexico's ruling party and its public relations exercise at the polls

THE victory of the right-of-centre National Action Party (PAN) in the strategic state Baja California Norte represents a historic change in the complex nature of Mexican politics.

For the first time, the country's ruling Institutional Revolutionary Party (PRI) has conceded the loss of a state governorship and legislature to an opposition party.

Acceptance of such a loss may have been painful to many of the PRI old guard, but President Carlos Salinas de Gortari early on recognised that defeat would reap more dividends both at home and abroad. In this sense he has delivered on his commitment to clean and transparent elections.

Nevertheless, this public relations exercise has appeared as a deliberate attempt to ensure the wholesale defeat of the candidates of Mr Cuauhtémoc Cárdenas Party of the Democratic Revolution (PRD) in his home state of Michoacan.

Mr Cárdenas, who last year emerged as the leading opposition figure was a popular PRI Governor of Michoacan from 1980 to 1986.

In the legislative and municipal elections in the states of Chihuahua, Zacatecas, Campeche and Durango the PRI

has claimed its familiar clean sweep against less apparent opposition.

The election results therefore, the first real test of President Salinas after six months in office, cast doubt as to how fast he can, and will move towards a more genuine politically pluralistic society.

The opposition parties for their part believe that Mexico can only overcome its economic problems in such a pluralistic environment.

The PRI had hitherto assiduously sought to combat the challenge of the PAN in the northern border states which see themselves increasingly in the orbit of the US.

Timid openings towards the PAN in the early stages of the previous de la Madrid administration were soon forgotten and old ball-playing practices soon prevailed.

Fraud in the northern states became the focus of international attention in 1986 when the PAN was deprived of victory by PRI chicanery in Chihuahua state elections.

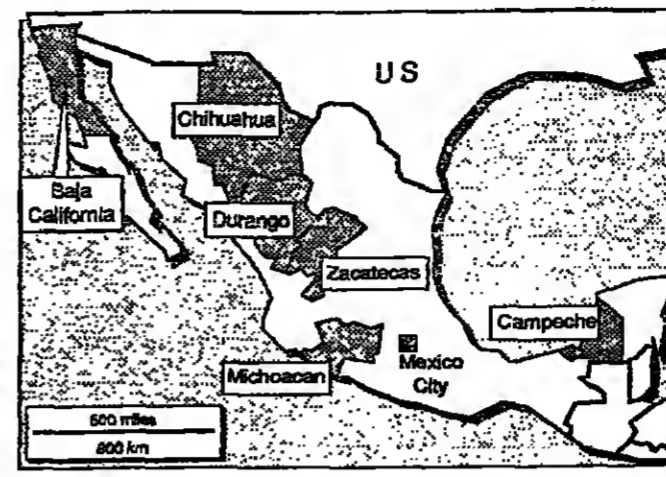
According to recent testimony from Mr Rodolfo González Guevara, a veteran former Secretary-General of the PRI and now a somewhat disgruntled leader of the reforming "Critical Current" in the ruling party, the PAN was robbed by vote manipulation of victory in Baja California Norte in the last three gubernatorial races.

But this year, there was more at stake than just containing the PAN. President Salinas had made a commitment - re-emphasised in the regime's recently published 1988-94 National Development Plan - to hold clean elections.

This followed last year's flawed and hotly disputed national poll in which Mr Salinas defeated Mr Cárdenas, who was standing on a broad nationalist ticket for the now defunct National Democratic Front, to gain the presidency.

Just before the July elections Professor Wayne Cornelius, an expert on Mexico and its relations with the US, went so far as to say at a seminar in San Diego that the only way that the PRI could win was by losing.

The consensus amongst independent analysts and observers watching the elections in six states - with the governorship only at stake in Baja California



President Salinas; recognising the dividends of a defeat

Norte was that conceding power in that state was decided upon by the Palacio Nacional in Mexico City.

In Baja California the PRI certainly did their best to over-awe hearts and minds. Fiscal austerity notwithstanding, a \$670m development plan for the state was announced, and the PRI sent hundreds of party workers to confront the PAN. Earlier this year in preparation for the poll, the unpopular incumbent Governor, Mr Xicotencatl Leyva, was sacked.

Well before the poll there, PAN supporters claimed to have detected "phantom" voters had been added to the register in Tijuana. All the evidence pointed to local officials preparing malpractice.

Yet in the event it was the local PRI activists who were dismayed and angry when two

days after the poll, Mr Luis Donaldo Colosio, President of the PRI, acknowledged that the voting trend was in favour of the PAN. "Get out... death to chihuahuas (people of the federal capital)," they were reported to have shouted.

The calculation in Michoacan - a poor state in the South-West, was clearly very different. In last year's national elections, Mr Cárdenas won 64 per cent of the vote compared with Salinas's 23 per cent in the state.

The PAN candidate, Mr Manuel Clouthier, obtained only 12 per cent. The Cárdenista left-wing coalition obtained one of the two seats for the Senate and 12 out of 13 of those allotted for Chihuahua in the National Assembly.

To counter-balance such a vote in 1988, the government promised a \$900m development programme and went to great lengths to drum up the local PRI faithful and to exploit differences in the Cárdenas camp.

Even assuming some success on this front, it is hard to understand how the PRI-controlled electoral commission could claim the party won all 18 of the seats available in the state.

Mr Cárdenas's supporters for their part are claiming they have won all 18 and are blocking roads throughout the state in protest.

His poll-watchers operating often against considerable obstruction from the electoral authorities - just as the PAN vigilantes in Baja California Norte - monitored the voting in nearly all the booths and have calculated that 64,678 votes were arbitrarily invalidated.

Some of the alleged "irregularities", which Mr Cárdenas intends to expose to the world media soon, have been standard PRI tactics. The main *cardenasista* charge is that en route from the voting booths to the central counting house the figures changed remarkably in favour of the PRI.

The decision to concede in Baja California, but to hold the line in Michoacan, reflects a PRI calculation about the nature of the opposition and the political threat that it poses. Thus it seems that despite Baja California Norte, the PRI leopard in the form of President Salinas has not changed its spots, but merely bleached them.

US reports progress on chemical arms ban

THE US and Soviet Union have made substantial progress on a draft treaty banning chemical weapons but difficulties remain over verification, the State Department said yesterday, writes Lionel Barber in Washington.

At a recently concluded negotiating session, US and Soviet representatives reportedly reached agreement on a "mathematical formula" to eliminate chemical weapons arsenals over a 10-year period. They also agreed in principle to a comprehensive exchange of data, including sites for their production and storage.

A US official said: "We did get a fair amount of progress, more than anyone originally expected. But it's not true that we're on the edge of a ban on chemical weapons."

The New York Times yesterday quoted Mr Max Friederhoff, head of the US delegation to the Geneva Conference on Disarmament as saying: "We reached agreement on a very complete, detailed proposal for the conduct of challenge inspections [of sites]."

Diplomats said, however, that it was premature to suggest that the two superpowers had struck a workable

verification agreement.

President George Bush, returning home after his European tour, reacted sceptically to the report which said that the US and Soviet Union had reached agreement on "key elements" of a treaty banning chemical arms. "It would be a pleasant surprise," Mr Bush said. "Verification is what has thwarted agreement all along."

Mr Bush has made an international agreement on chemical weapons a priority since he tabled a draft convention in Geneva in 1984. Such a convention would be like the Nuclear Non-Proliferation Treaty and

could provide for an international agency to monitor compliance which would go beyond military facilities and include civil chemical industrial sites.

Even a superpower agreement, however, would not address the problem of the growing number of supplier nations.

Work on a chemical weapons convention has been going on for eight years in Geneva. US and Soviet negotiators have been working separately on an agreement which, they believe, could give a lead in the 40 other nations attending the Geneva conference.

Brazil unveils record monthly trade surplus

By Ivo Dawdney in Rio de Janeiro

BRAZIL has reported a \$2.5bn trade surplus for June, the largest for a single month. The outcome gives a \$9.2bn result for the first half, which is also a record.

The sharp improvement on the previous two months has been, in part, attributed to exporters holding back sales in anticipation of devaluations of the New Cruzado's exchange rate.

Traders rushed ahead with sales early this year in anticipation of January's economic package. After taking advantage of high domestic interest rates, they have now returned to supplying foreign markets.

Mr Namir Salek, the director of Cacex, the state trading agency, singled out steel products, vehicles and components and soya as leading the export surge which totalled \$3.69bn - up 21 per cent on the same month last year.

Imports also increased, though less substantially, rising \$323m on May to \$1.45bn. Independent economists

believe that a recent 5.5 per cent increase in industrial output has come as a result of widespread destocking during the price freeze earlier in the year.

The positive result has led Cacex to increase its forecast for the year-end surplus. Some now believe that the \$16.5bn originally predicted could rise to a record for a calendar year, possibly above \$18bn.

Announcing the results, Mr Salek took pains to dismiss a claim by an independent economist last week that under-invoicing of exports and over-invoicing of imports meant Brazil was set to lose as much as \$10bn in foreign exchange earnings this year.

Mr Salek argued that only about \$6bn in export products could be subject to illegal reporting.

There is speculation that foreign exchange reserves could rise to \$8bn in September - the month a large \$2.23bn debt interest payment to foreign banks is due.

Argentine state groups 'face \$5.5bn deficit'

By Gary Mead in Buenos Aires

ARGENTINA'S state-run companies will be in deficit to the tune of \$5.5bn this year on current performance, Mr José Roberto Dromi, the head of Argentina's Ministry of Public Works (MOSP), said yesterday.

Since taking office on July 8 President Carlos Menem has appointed "interventors" in 11 of the major state-run companies. Their daunting 180-day task will be to make a complete inventory of the financial situation of their respective entities.

Mr Dromi said, at a press conference on Tuesday that "there is no possible solution in Argentina [of its economic crisis] without reform of the state."

Argentina's current two-pronged economic crisis, of inflation now running at 200 per cent and a widening fiscal deficit in excess of 15 per cent of gross domestic product, has given rise to urgent planning by President Menem's economic team.

The operating deficits of the

10 largest state-run companies will range from \$1,026bn in the case of the oil company Yacimientos Petrolíferos Fiscales to \$22m in the case of Obras Sanitarias Nacional, which deals with sewage disposal.

The deficits are financed in a variety of ways, ranging from straight subsidies from the treasury through transfers of cash, bonds and creative accounting.

Mr Dromi revealed that there are some 40,000 judicial cases outstanding against publicly-owned companies, many a result of failure to pay bills on time, or at all.

Mr Dromi's analysis of Argentina's public sector is preparatory to moves by the Menem government to effect what he called a "serious adjustment" in public spending, the focus of which will be a law permitting the privatisation of all state-owned companies. The privatisation bill is due to be presented to the Senate, the upper house of Congress, in the next few days.



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Guatemalan army weighs its might

Anson Ng looks at the pivotal military role amid rising discontent

IT IS characteristic of Guatemala's defence minister, General Hector Alejandro Gramajo Morales to remark, forthrightly, that on the one hand "the army directs the president, but on the other the president also manipulates the army."

President Vinicio Cerezo Arevalo has counted increasingly on the backing of a military faction headed by the controversial general, a pillar of the Christian Democrat Government, to prop up his beleaguered administration since taking office in January 1986. The alliance has weathered two coup attempts and several political plots.

Nonetheless, huffed by pressure groups from the extreme right, cracks in the partnership are emerging and there is speculation that the US-trained General Gramajo, the central target of the coup plotters, will be substituted by an army hardliner. Such a development would undoubtedly circumscribe President Cerezo's movements.

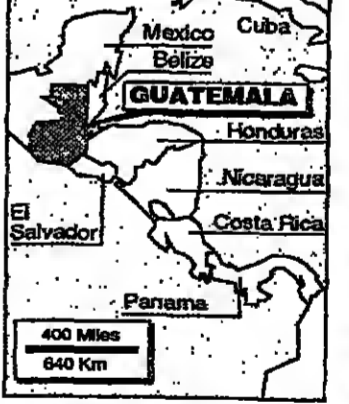
The common notion which unites the military plotters and their civilian allies is that General Gramajo's counter insurgency campaign is failing and that his populist tendencies will pave the way for an eventual Communist takeover.

The militants within the ultra-conservative business community, upset by the government's tax package, are thought to have provided financial help for the coup bids.

The hardliners advocate a war to annihilate the almost 30-year-old guerrilla movement. In contrast, General Gramajo stresses the importance of extending the fight into the political arena.

To the annoyance of the business sector, he has also criticised "feudal" land owners and labelled the far right as "subversives," a term hitherto reserved for the leftist guerrillas.

Talks held with the URNG leftist rebels in Madrid in 1987, when the Guatemalan army



was suffering notable casualties, particularly amongst the officer corp. The guerrillas, formerly over 5,000 strong have been reduced to about 1,500 combatants but they have continued to ambush army patrols, harass oil exploration teams and raid coffee farms.

The presence of Russian and Cuban journalists and the return of prominent exiled opposition leaders is another irritant. Discontent in the armed forces has been further fuelled by relatively meagre amounts of military aid from the US (about \$8m in "non-lethal" equipment which excludes armaments).

Critics of the Cerezo Government believe the flow of US aid has been curtailed by Guatemala's reluctance to adopt an openly anti-Sandinista stance.

US diplomats, however, insist that the flow of aid has been hampered by budgetary constraints.

The most recent coup threat, in May, will almost certainly prompt concessions to appease the reactionary faction within the military, just as in the aftermath of the military revolt last year.

"These coup attempts are like heart attacks. They kill part of the system and affect the whole body. To survive, the patient has to accept certain restrictions," observed Juan José Rodil Peraza, the former Minister of Interior, who was removed in the wake of the 1989 army uprising. Mr Rodil was accused of forming a parallel security unit to challenge the military.

Mr Cerezo will probably be forced to divert already scarce resources to beef up military spending, to deploy more "aggressive" battalions against the URNG guerrillas and to narrow the political space granted to the left.

It is also rumoured that the President has had to grease the palms of several top army commanders to ensure their loyalty. Fear of a backlash from fellow army officers means that coup plotters are more likely to be discharged from

cially in the light of the Christian Democrats' fading popularity in the urban centres.

But the Government's macroeconomic policies have yielded results. After six years of recession, per capita growth has risen steadily since 1987, the quetzal has strengthened against the dollar and annual inflation is down from 45 per cent in April 1986 to about 14 per cent in June 1988.

But social tensions persist. Most of the population lives below the poverty line. Illiteracy is widespread, infant mortality is high and over 40 per cent of the labour force is under or unemployed.

The government's pledge to help the weak and to effect adjustment. Corruption is said to be rife, at least within the middle and lower ranks, if not at the ministerial level.

The police, which is partially supervised by the military, is hamstringed in attempts to tackle an upsurge in crime by inadequate resources, poor training and incompetent personnel. The country's judiciary is antiquated, bureaucratic, short of money and tainted with nepotism.

Like the multiple earth tremors which have shaken the country, the coup rumblings are expected to recur. But with over \$800m of financial assistance from the US, the European Community and Japan at stake, the odds are that Mr Cerezo will be allowed to complete his constitutional term.

The latest intrigue, codenamed "the Manila plan", has the makings of an Agatha Christie thriller. It involves the estranged first lady, Raquel Blandon, who while on a visit to Cuba supposedly hired Libyan gunmen to assassinate her husband. The threats, whether real or invented, have conveniently provided President Cerezo with some breathing space in the face of mounting labour unrest. He has used it as an excuse to retire momentarily to his well-equipped country retreat.

صحة من الامل

UK NEWS

Heathrow should relieve Gatwick chaos, says CAA

By Lynton McLain

THE GOVERNMENT was urged yesterday to remove the ban on holiday charter flights operating from Heathrow Airport to ease congestion at Gatwick, the UK's main base for charters.

The Civil Aviation Authority recommended the re-introduction of charter flights in evenings and at weekends in a report to Mr Paul Channon, Transport Secretary.

The CAA report called for government action on traffic distribution policy for airports serving the London area. It also called for an immediate start on planning additional runway capacity in the south-east.

The extra runway capacity would be needed despite the recommended provision of greater passenger capacity at Gatwick and at regional airports.

The CAA said in its report that the extra runway capacity would be needed "within a few years of the end of the century".

The authority also wants air taxis and corporate business aircraft to be given priority over general aviation light aircraft at Heathrow.

Mr Channon has already given the CAA the go-ahead to do more work on its analysis of runway capacity in the south-east and to produce a computer model of capacity and demand for runways to beyond the end of the century.

This work will take a year and will delay the submission of the fully analysed recommendations of the

CAA, which were requested by Mr Channon by this month. The full analysis will not be published until next year, but the authority must start immediately on planning the extra runway capacity.

The authority also advised Mr Channon in its formal report published yesterday that the Government did not need to introduce regulations to limit access by airlines to London airports.

The CAA said: "The interests of users are likely to be best served if the air transport industry is allowed to develop its own solutions to the shortage of capacity without additional regulatory intervention."

This is in line with general government policy of allowing market forces to determine the distribution of air services between airports, although the Government at one stage considered giving scheduled services priority over charters at Gatwick and placing limits on airlines' frequency of service at Heathrow.

The number of near-misses involving an element of risk in the skies over Britain increased last year, the CAA said in its annual report, also published yesterday.

The Traffic Distribution Policy for Airports serving the London area - Advice to the Secretary of State, CAP 53, 15 plus 12 postage from CAA Printing and Publications Services, PO Box 41, Cheltenham, Glos. GL50 2BN.

French see accord on environment watchdog

By John Hunt, Environment Correspondent

BRITAIN has dropped its opposition to proposals for an EC environment agency according to Mr Eric Lalonde, the French Minister of the Environment, who yesterday had discussions in London with Lord Callaghan, Minister of State for the Environment.

However, it is clear that neither side envisages a tough regulatory body along the lines of the US Environment Agency. Instead, the European version is seen as an information-collecting organisation to provide impartial scientific advice to the EC Commission and the Council of Ministers.

This is in line with the British Government's belief, recently advanced by Mr Nicholas Ridley, Environment Secretary, that such a body is needed to counterbalance what he termed "misinformation" on green issues.

Britain's original fears that such an agency would lead to an infringement of national sovereignty now seem to have been laid to rest.

Mr Lalonde was visiting Britain just as France assumed the presidency of the EC Council of Ministers for six months. He said that France would make every effort during its presidency to establish the new agency and that Lord Callaghan had agreed to this in their talks.

The Department of the Environment confirmed that there was a wide area of agreement during the discussions.

Mr Lalonde also emphasised that France would be pressing for standardised EC green labelling of products during his presidency.

That would cover not only the environmentally "friendly" nature of products in shops, but also the way products were produced and disposed of. Mr Lalonde thought that was essential to completion of the internal market in 1992.

France, he said, would also be pressing for a "realistic and workable" directive on freedom of environmental information. "It is a major concern to all our citizens to know what is happening about the environment," he said.

Takeover rivals put business before battles

Hugo Dixon on the surprising new alliance between the warring GEC and Plessey

NEWS of the link-up between GEC and Plessey to apply for one of Britain's new and potentially lucrative personal communications licences is a demonstration of how cool business logic can still prevail in the midst of one of the most acrimonious takeovers the City of London has ever witnessed.

Over the past nine months, the two electronics companies have been fighting each other in the courts, the Monopolies and Mergers Commission and the financial markets.

Plessey and GEC have repeatedly been at loggerheads over the operation of GPT, their telecommunications joint venture, which is the biggest prize in the bid battle. Only a fortnight ago, Mr Stephen Walls, Plessey's managing director, accused GEC of bad faith following the breakdown of peace talks on ending takeover hostilities.

So it was something of a surprise to see the two companies entering into yet another collaborative agreement. Although the prime players, Lord Westwood, GEC's managing director, and Mr Walls, were not present at the press conference to announce the deal, other executives from the two companies mixed with each other amicably.

The logic behind the link-up is that, in this case, two plus two probably add up to about 10. Separately, neither Plessey nor GEC had much chance of being awarded a personal communications licence. Together,



Business partners: Philip Parker, left, of Plessey, Brian Meade, centre, of GPT, and Tom Dougherty, of BellSouth, at the press conference to launch the new alliance

they are the clear front-runners.

Personal communications networks, a concept pioneered in the UK, are designed to begin operation in 1992 or 1993. Based on high-frequency radio links, they will compete with the cellular networks run by Vodafone and Cellnet and with British Telecom's fixed-line service.

The Government has already said that one of the new licences will almost certainly go to a consortium led by Mercury Communications, BT's only rival for fixed telecoms. There will be one or two others.

The danger of putting in separate bids was illustrated last year when both GEC and Plessey applied for licences to run

a telepoint service, a less sophisticated variety of mobile communications due to start later this year.

GPT originally wanted to apply for a licence; GEC was happy to let it but Plessey blocked it. As a result, both parents put in an application but neither of them received a licence.

Some GEC executives feel that both companies' applications were stymied by acrimony over the takeover bid which had just been launched. The Government could not evaluate the application properly, it is thought, because of uncertainty over who would control the operation at the end of the day.

A joint application, by contrast, has many benefits,

including the fact that each player has eliminated its major competitor for a licence.

Although the Government is keen that there should be foreign investors in the new networks, the betting is that it will want majority ownership to be British.

With BT and Racal Telecom prevented from applying because they run the existing cellular networks and Mercury already promised a licence, the only electronics majors still in the running, apart from GEC and Plessey, are STC and Ferranti.

Both of these companies will presumably still want part of the action but it is now difficult to see how either could construct a more formidable consortium than GEC and Ples-

sey. GEC and Plessey will each have a 30 per cent stake of the new consortium. BellSouth, the large US telecommunications operator, will have 20 per cent and a further 20 per cent will be reserved for other partners.

The inclusion of BellSouth is designed to convince the Government that the group will have expertise in operating networks as well as developing the technology. It will also mean that the new venture will not be an awkward 50-50 joint venture such as GPT, where neither side has overall control.

Moreover, in the event that GEC takes over Plessey, there is an arrangement that it will not be able to accumulate a majority stake in the consortium. None of the players, however, would spell out how this arrangement was supposed to work.

The remaining 20 per cent could be used to bring in a number of partners from continental Europe. This would help ensure acceptance of the new technology throughout Europe, which is considered essential if sufficient economies of scale are to be built up.

There was speculation last night that Siemens, GEC's partner in the bid for Plessey, might be involved. However, Mr Brian Meade, who is responsible for the application from GEC's end, said that although this was a possibility the matter had not yet been discussed with the West German company.

Banks offer capital to small businesses

By Charles Batchelor

TWO British clearing banks, Barclays and National Westminster, are to offer venture capital finance to small businesses. This is the first significant move by British banks to provide equity finance for small business.

Both banks, which already have specialised venture capital subsidiaries, will provide small amounts of equity finance through their branch networks for the first time. The two banks are training selected branch managers to handle venture capital inquiries.

Barclays has allocated £20m to venture capital over the next two years, though this sum will be increased if there is sufficient demand. The bank will provide amounts of between £100,000 and £500,000 to help companies which are starting up and established small businesses which want to expand.

Barclays' managers will handle initial inquiries but the assessment of the business proposal and the monitoring of

the companies' progress will be done by Baroness, an independent, London-based venture capital company. Barclays will second its own staff to Baroness to gain experience.

The Barclays scheme will be launched in September through the bank's 327 business centre branches. Investments will be assessed on conventional venture capital basis.

National Westminster Bank, meanwhile, is this week extending a pilot venture capital scheme throughout its branch network. It has already made three equity investments worth a total of about £1.5m under the pilot scheme.

Natwest has for the past three years run a Growth Options scheme under which it provides subordinated loans to small businesses with an option to convert some of the loan into equity. It has made loans worth £18m but expects this figure to increase to £25m by the end of 1989. The new scheme involves straightforward equity investments.

Business 'key to satellite profits'

THE REAL profits from satellite communication will come from business services rather than the much higher profile satellite television, according to a new report.

A review of satellite communications in Western Europe by CIT, the communications research group, forecasts that annual revenues from business services will total \$1bn by 1992.

New Satellite Communications in Western Europe 1989, CIT Research, 23 Dering Street, Hanover Square, London W1R 9AA, £3.95.

Last big British radiator maker faces sale

By Richard Tomkins, Midlands Correspondent

IMI, the Birmingham-based industrial group which is Britain's only large independent manufacturer of car and lorry radiators, yesterday said it was in discussions over the possible sale of the company.

The move follows less than a month after the purchase of Britain's only other large independent radiator manufacturer - Llanelli Radiators of South Wales - by Calsonic, an associate of Nissan, Japan's second largest car maker.

One company known to have entered discussions with IMI over its radiator business is Nipponenso, the Japanese car components giant which is an affiliate of Toyota, Japan's biggest car maker.

Toyota has recently announced plans to set up a car assembly plant in Derbyshire and an engine plant in North Wales.

Nissan, meanwhile, is already building cars at its UK plant in Sunderland.

The latest advances on the UK radiator industry provide further evidence of the way in which multinational vehicle component makers are keen to parallel car manufacturers' moves into the fast-growing UK automotive industry.

LLANELLI Radiators, the former Rover Group component subsidiary bought by Calsonic of Japan last month, is to open a manufacturing facility at Shildon, County Durham with an initial investment of £2m, John Griffiths writes.

Other recent examples have included the purchase of Delanah, Britain's biggest car heading company, by Valeo of France, and the purchase of Armstrong Equipment's shock absorber division - again, the UK's biggest - by Monroe Auto Equipment of the US.

IMI Radiators has annual sales of £30m. It employs just under 900 people, some at its headquarters and main factory

in Shipley, West Yorkshire, and the rest at two other factories in nearby Leeds.

Its output consists mainly of high-performance and specialised radiators for cars, lorries, tractors and construction equipment. The biggest customers for its car radiators are Volkswagen, Jaguar, Volvo, Mercedes Benz and Ford.

Most radiators for UK volume car production are made either by the car manufacturers themselves or bought in from affiliates or overseas suppliers.

IMI emphasised yesterday that it was examining a number of options for the future of its radiator business including outright sale, some kind of joint venture, or retention. A decision, it said, was unlikely before September.

DTI curbs brewer sales of free pubs

By Lisa Wood

BRITAIN'S big brewers will not be able to sell off pubs freed of the tie without disposing of an equal number of their tied outlets. Lord Young, the Trade and Industry Secretary disclosed yesterday.

Lord Young, who last week announced that brewers owning more than 2,000 pubs would have to release from the tie 50 per cent of their outlets over that number, was giving evidence before the Commons agriculture committee, chaired by Mr Jerry Wiggin. The tie is the system in Britain whereby a pub tenant is obliged to take his brewery owner's beer.

Lord Young said the formula was "dynamic" because future acquisitions and disposals would be affected.

He said brewers who decided to put low barterage rural pubs into their quota of free houses and then decided to sell them might think twice if they then had to free a similar number of their tied houses in order to satisfy the 50/50 ratio.

Lord Young said he had taken a step-by-step approach to the report of the Monopolies and Mergers Commission and there would be a review in three years to see whether or not competition had improved in the industry.

Closure of Whessoe workshops will cost 260 jobs

By Ian Hamilton Fazey, Northern Correspondent

WHESSEO, the heavy engineering and plant construction group, is to close its workshops in Darlington, County Durham, over the next 12 months, with the loss of 260 jobs.

Mr Chris Fleetwood, chief executive, said last night the company's heavy engineering division had struggled to work at full capacity since nuclear

power stations had switched from advanced gas cooled to pressurised water reactors.

He said: "We are looking for a better strategic balance that will build on our strengths in design, manufacture and systems control in future we will sub-contract our heavy manufacturing."

Whessoe's Darlington shop had specialised in making

plant for the gas cooled system, particularly at the Heysham and Sheerness nuclear power stations.

Sizewell, currently under construction, uses the pressurised water system.

The company will continue to employ about 800 people, of whom 110 will be in a new systems and controls division to be housed in a new factory

in Newton Aycliffe, about eight miles across the A1(M) road.

About 100 will remain in Darlington at the company headquarters, where Whessoe's projects team and computer division will also be based.

Whessoe also owns Atlas, a high pressure pipework manufacturer in Derby, as well as subsidiaries in Australia and Ireland.

Advertisement for London Securities Plc, featuring details of convertible preference shares and contact information for the company.

OFT to be given more power to enter and search businesses

By David Churchill

SIR GORDON Borrie, director general of fair trading, already one of the most powerful men in British business, is to get wide-ranging new powers of entry and search to weed out anti-competitive practices in industry.

The move, announced by Lord Young, Trade and Industry Secretary, in a white paper on restrictive trade practices, will give Sir Gordon the powers to uncover price-fixing cartels and other restrictive practices he has been seeking for the past decade.

Sir Gordon and his officials at the Office of Fair Trading have only been able to take action against price-fixing cartels, collusive tendering and other restrictive arrangements after they had firm evidence that such anti-competitive behaviour was taking place.

This has meant that the OFT has relied heavily on informers for its information - a practice which OFT officials believe has allowed numerous corpo-

rate examples of anti-competitive behaviour to escape censure.

Price-fixing cartels in the ready-mixed concrete industry, for example, have only come to light more than 10 years after they started operating. Others in the glass industry, recently uncovered by the OFT, have been in force since the 1950s.

The White Paper will give the director general of fair trading the authority to "investigate on reasonable suspicion" any cases of restrictive practices.

Companies and individuals will have to comply with OFT requests for information. If they do not, the director general of fair trading will be empowered to seek a magistrate's warrant to "enter business premises, without warning and using reasonable force if necessary, to search for, examine and remove business records and take copies of them."

It will be a criminal offence to obstruct the director general or deliberately supply false or misleading information.

Although the new powers of collecting evidence will give teeth to the OFT in uncovering restrictive trade agreements, the Government has held back from its initial proposal to give Sir Gordon the power to enforce the new legislation.

In a Green Paper published early last year, the Government had suggested that the OFT be expanded to include hearing appeals against prohibited restrictive trade agreements and to impose financial penalties of up to 10 per cent of total UK turnover.

However, the Government has decided that giving Sir Gordon the power to enforce the law and impose penalties

"would not be appropriate to a single appointed person."

Instead the Monopolies and Mergers Commission is to be strengthened by the appointment of 10 further part-time members who will form a restrictive trade practices panel. Their job will be to sit in panels of three to reach final decisions when the published conclusions of the director general of fair trading are disputed and to impose penalties in appropriate cases.

The proposed new legislation - to be brought in when parliamentary time permits - will be the first overhaul for restrictive trade legislation in the UK for more than 30 years.

The present legislation covering restrictive trade agreements - in the view of the Government and most of those who responded to last year's green paper - is too inflexible and slow and too often concerned with harmless agreements while letting other cases go unpunished.

The present system is based on the premise that all restrictive agreements between two or more parties have to be registered with the registers of restrictive trade practices in London, and then can operate lawfully until the Restrictive Practices Court rules otherwise. Those agreements not registered are automatically declared null and void - if uncovered by the OFT.

The Government's new approach will be to concentrate on the effect of restrictive agreements rather than their form. Thus the new legislation will remove the automatic need to register agreements but will place a blanket prohibition on any agreement which "prevents, distorts or restricts competition."

Large advertisement for Hotel Piccadilly, featuring the text 'Summer at the DELUXE Hotel Piccadilly' and a price of £48.50 per night. Includes contact information and a small image of a person.

Advertisement for Follett Jaguar cars, featuring images of a Jaguar sports car and a Jaguar sedan, with the slogan 'WE KEEP THE BIG CATS'.

UK NEWS

Public borrowing rise may reflect slower growth

By Simon Hilberton, Economics Staff
SIGNS THAT the slowdown in economic activity may be leading through to the Government's finances were indicated yesterday when the Treasury disclosed that the Government had borrowed £700m in June. In the first three months of the financial year, the public sector borrowing requirement was £200m, in the same period last year, the Government had repaid £1.2bn of debt and was well on course for a record debt repayment of £14bn.

Welsh land authority reports record profit

By Anthony Moreton, Welsh Correspondent
THE LAND AUTHORITY for Wales produced a record profit before tax of £7.67m last year, reflecting the strengthening of the Welsh economy. Mr Geoffrey Inkin, its chairman, said yesterday. The profit compared with £1.3m in the previous year.

Walker extends valleys programme for two years

By Anthony Moreton, Welsh Correspondent
THE VALLEYS programme has been extended for a further two years. It was launched a year ago by Mr Peter Walker, Secretary for Wales, to rejuvenate the economically troubled South Wales valleys.

Retailers sharpen up video's tawdry image

Maggie Urry finds newcomers focusing on the sale and rental of pre-recorded tapes

UNTIL RECENTLY, the reputation of the video rental and retail industry related to one of sleazy backstreet shops run by men in dirty raincoats, renting pirated videos. It was hardly a suitable image if it were to become a growth business attracting a wider market.

Minister hits back at monetarist critic

By Martin Wolf
MR PETER Lilley, Economic Secretary to the Treasury, yesterday defended the Treasury's monetary policy against attack from the monetarist economist, Mr Tim Congdon, economic adviser at Gerard and Natimall, the City discount house.

Taxing question resolved for road injury victims

Eric Short on a case that made insurance history

LEGAL history and motor insurance history were made in the High Court last week when damages in a motor injury claim were awarded in the form of a structured settlement - part cash sum and part income.

Gifford finds 'horrific' racial discrimination in Liverpool

By Ian Hamilton Fazey, Northern Correspondent

LORD GIFFORD, one of Britain's leading radical lawyers, yesterday called for an official inquiry into race relations in Liverpool and the policing of Toxteth, where rioting eight years ago led to the use of CS gas on the British mainland for the first time.

EMPLOYMENT

Ambulance crews plan ballot on action over pay

By Michael Smith, Labour Staff
AMBULANCE crews are threatening to take their first industrial action in seven years in a dispute which will test the Government's resolve to keep down public sector pay settlements following British Rail's offer of an 8.8 per cent deal.

TV group to impose new work practices

By Charles Leadbeater, Labour Editor

YORKSHIRE Television is to press ahead with plans to implement far-reaching changes to working practices, pay systems and working hours in spite of a staff vote rejecting the changes.

Steel group wins free enterprise body's award

ASW, the Cardiff-based steel company that was the largest manager of buy-outs when it was bought by British Steel, has won the Welsh Free Enterprise Award for 1989.

Rose campaigners submit alternative development

CAMPAGNERS seeking to save the remains of the Elizabethan Rose Theatre in London yesterday submitted their own plans for commercial development on the site.

Broadcasting unit's merger is opposed

By Raymond Snoddy
THE Broadcasting Complaints Commission, which is responsible for examining complaints of unfairness by broadcasters, yesterday launched a campaign for its own survival as a separate body.

More women joining top jobs in Civil Service

By Michael Smith, Labour Staff
WOMEN ARE increasingly being appointed to middle and senior management jobs in the Civil Service, say Government figures published yesterday.

Ucatt to seek women members

By John Arlidge
UCATT, the construction union, has announced plans to attract more women into the traditionally male dominated building industry in an attempt to counter increasing skills shortages and recruitment problems.



Mr Malcolm Field: British love to collect things

Unhappy Knapp takes hard line with BR

Fiona Thompson on the NUR leader's vain attempt to promote a more moderate line

MR JIMMY KNAPP was a not a happy man when he walked into his 11.14pm press conference on Monday night.

The general secretary of the National Union of Railwaymen looked exhausted and drained - a state not simply due to the previous nine hours spent locked in debate with his executive.

Even the traditional cup of tea he always has before facing the press did not appear to have helped - he was a man with bad news to deliver and it showed.

The NUR's 21-strong executive had voted by 12 to eight (one member was on holiday) to reject British Rail's 8.5 per cent pay offer and to go ahead with yesterday's fifth, 24-hour strike.

Mr Knapp had pushed hard for an alternative course - to reject the offer but to suspend the strike action pending further talks at the conciliation service Acas. This was rejected by the same 12 to 8 vote.

He fought his corner but ultimately could not garner enough support for his more

moderate stance.

After having won almost universal plaudits for his conduct since the five-week long dispute began, Mr Knapp knew he could now expect a barrage of government criticism and righteous indignation from British Rail. But more important, he knew that the NUR risked losing at a stroke the sympathy it had won from the travelling public in spite of its four 24-hour strikes.

There was no contest in the executive voting for outright acceptance of the offer - there were hesitations over both the pay side and the question of what BR was actually guaranteeing on bargaining machinery.

On pay, all 130,000 BR staff have been offered 8.5 per cent and the 64,000 staff in London and the south east will get between 10 and 15 per cent because of extra allowances.

In spite of its reorganisation in 1978, however, the NUR's executive does not reflect the regional balance of its membership, and executive members representing areas outside London and the south east have a

proportionately higher weighting on the board.

As a result, although a substantial proportion of NUR members would qualify for the higher increases, executive members representing workers who only qualify for the flat 8.5 per cent were not keen to accept.

On the question of bargaining machinery, in spite of acknowledging that the BR board had moved significantly by giving a commitment that pay and conditions would continue to be negotiated nationally, the executive was deeply suspicious of its position - in the light of BR's actions over the past week.

When making the commitment to retain national negotiating on pay and conditions, during last Friday's Acas talks, BR also said all existing national agreements would be honoured.

The union said yesterday, however, that this commitment was not in the document BR sent to the NUR for approval - hence the suspicion.

To some NUR watchers, the executive's decision was not

surprising.

Mr Richard Hyman, professor of industrial relations at the University of Warwick, was one of the three authors of the Warwick Report, a year-long inquiry into the NUR commissioned by the union and based on an extensive survey of its members.

The report, which found widespread dissatisfaction among railway workers, noted that there was not sufficient work at head office to justify the continued presence there of the 21 executive members. Apart from the few who sit on the key sub-committees, it was a full-time body without a full-time job to do, Mr Hyman said yesterday.

He said this was a recipe for friction and bad feeling, with the consequence - as he saw it - that some executive members try and look for opportunities to exercise control over the union's operation.

The executive has also had a long history of standing out and only gradually giving way on issues - and getting marginally more in the process. This may have provoked Monday night's split.

From all corners, the internal opinion on Mr Knapp is one of respect. He has always been anxious not to steamroller the executive - while he will make his own view known very clearly, he will not impose it.

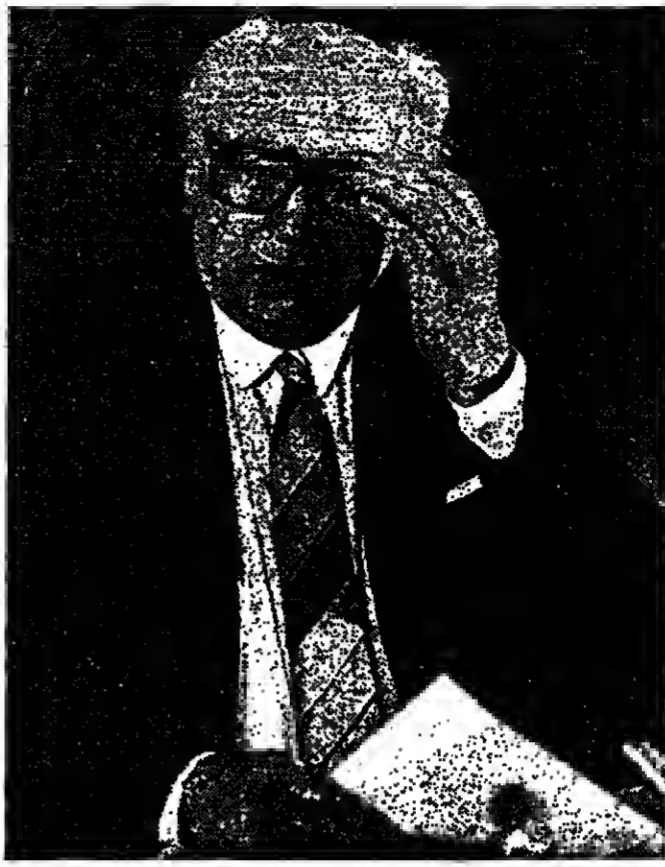
Above all, he wants to hold the union together.

He knows his executive inside out and clearly had a feel for what was to come when leaving Acas at 8am on Saturday, he intimated that he did not think his executive would stomach the offer.

Had the board members but recognised it, Mr Knapp was giving them an early warning when he argued very hard then that they should improve the offer "even as a gesture."

Having fought and lost, however, there will be no further divisions.

The NUR's policy is to unite behind a policy once it is agreed, so there will be no opportunity to change Monday night's decision until both sides have resumed talks at Acas.



Jimmy Knapp; could not win backing for moderate stance

Talks called to settle council staff pay dispute

By Michael Smith, Labour Staff

LOCAL GOVERNMENT employers are likely to meet union leaders of 500,000 white collar workers tomorrow for first time in a fortnight and try to resolve a dispute which is causing severe disruption to council services.

The meeting would coincide with the final day of a three-day strike by members of Nalco, the local government union, which has disrupted or closed social service offices, libraries, day care centres and rates offices.

The employers' side, which suggested the meeting to the union, said there was no prospect of it changing its pay offer at the talks, which would be informal.

Lacsab, the local government advisory body, said yesterday that the employers wanted to ensure they fully understood Nalco's position. They would take stock of the position at a formal employers' meeting on Monday.

Nalco leaders believe that pressure is growing on councils to increase their 7 per cent final offer after the 8.5 per cent offer made by British Rail to its workers. They said yesterday that if there was no significant movement both on the level of increase and the "strings" attached to it, they would ballot on further industrial action.

However, the union is almost certain to hold back from carrying out earlier threats to ballot for an indefinite strike. Instead, it is likely to seek support for weekly one-day strikes across Britain and smaller localised stoppages.

The two sides continued to dispute each others' estimates of support for the strikes, which began two weeks ago.

Nalco said about 470,000 members were on strike yesterday, an increase on last week's total, but Lacsab estimated that less than 50 per cent of the union's membership was out, and the figure was declining.

Nalco is seeking 12 per cent or £1,200 a year, whichever is higher, and wants the employers to drop plans to allow councils more freedom to interpret national agreements.

Time for bluffing nears the end in the dockers' dispute

Jimmy Burns looks at the tougher attitude of the port employers who claim more dockers are returning to work

THE time for bluffing in the docks dispute appears to be over.

Employers last night claimed that the trickle in the return to work in recent days was poised to turn into a flood, with support for the strike close to crumbling in Grimsby and Immingham, one of the largest port operations in the country.

They have also indicated that they could soon begin to sack dockers who continue to strike at ports where support has seemed most solid, namely Liverpool, London and Southampton.

TGWU transport union officials meanwhile appear to have had their spirits lifted by the pledge made by dockers' leaders in continental ports that they will refuse to handle diverted cargo.

They say they are prepared for a lengthy strike and have warned that no dockers will return to work until the last of his dismissed colleagues is

reinstated.

Whatever the final outcome of the dispute, the first ten days of the strike has already turned Britain's docks industry inside out, with 1,350 dockers of the 9,200 formerly registered under the Dock Labour Scheme taking redundancy payments.

As Mr Stuart Bradley, managing director of Associated British Ports, the biggest port employer, put it yesterday: "What is happening now in the port industry is setting out the basis for the next 50 to 60 years. We're talking about restructuring the industry."

ABP owns 19 of the 60 ports formerly registered under the Dock Labour Scheme - equivalent to 25 per cent of Britain's total port capacity. Since the dispute began, 100 of its 1,720 registered workforce have taken voluntary severance under the Government's compensation scheme.

Mr Bradley says that the

ASSOCIATED BRITISH PORTS		
	Dockers employed pre-strike	Dockers accepting severance
*Hull	510	236
*Goole	135	72
*Grimsby	10	10
*Immingham	18	6
*General Workers Stevedores	68	47
*Southampton	307	148
Berry	25	21
Newport	175	84
Swansea	78	78
Ayr	14	4
*Fleetwood	44	14
Garston	58	58
King's Lynn	49	36
Lowestoft Container Terminal	12	12
Plymouth	14	11
TOTAL	1,720	1,000

* Ports on strike

In practice, this has meant that ABP has gone faster and further in trimming its workforce than British Coal during the miners' strike. Rather than wait for the strike to end before making substantial job cuts, as British Coal did, ABP

appears to be wiping the slate clean from the outset, before starting afresh.

The effects of such a strategy has already been felt in the ABP port of Garston, on the River Mersey, where the entire former registered dock workforce of 58 took voluntary severance in the first week of the dispute.

Operations at the port have been resumed, with management redeploying its other employees to do docks work if necessary and customers providing their own labour for discharging and unloading cargo.

Grimsby and Immingham, one of the largest port operations owned by ABP, has the bulk of its workforce still officially on strike. Yet there, too, local management has managed to insure the continuing operation of the port.

At the port, 105 of the 720 dock workers have taken voluntary severance, while just over 400 were still on strike

yesterday. With about one third of its original workforce back at work, the port yesterday had 16 ships being worked normally, although trade in steel products which normally averages about 20,000 tonnes per week is believed to be down to about 2,000 tonnes.

Even in Southampton, where support for the strike has seemed most solid, 13,000 tonnes of cement have been piped in and out of the port thanks to technology now available on self-discharging ships.

Nevertheless, the port's container operations which require skilled dock workers have been held up by the strike, forcing ABP to issue letters to the strikers that they will be sacked unless they return to work.

It could take management between two and three weeks to train a skilled replacement labour force and re-allocate its

non-striking employees into an effective operational force.

If this proves difficult in the short term, the company has not ruled out taking advantage of its diversified asset structure to make more areas of its ports available for property development.

Of the 7,000 acres of land owned by ABP around the country, 2,500 have already been set aside for property development, and property now accounts for an equal share, along with ports, of the company's total profits.

Union officials see what ABP is doing as nothing more or less than what they said it would do - that is, riding roughshod over dockers' jobs and long established working arrangements the moment the Dock Labour Scheme was abolished. But since the dispute began they have shown themselves unable to dictate the scope and pace of change.

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SINGAPORE AIRLINES

UK NEWS

Managers hope to win public sympathy in strike Boost for rail chiefs as union remains divided

By Kevin Brown, Transport Correspondent

MORALE was rising among British Rail's top managers yesterday as the extent of disagreement among the executive of the National Union of Railwaymen became clear.

The mood at BR's Euston House headquarters changed overnight from deep gloom over what seemed like almost total victory for the unions to virtual disbelief at the NUR's tactics.

"The NUR have delivered themselves into our hands. Having played it very skilfully all the way through the dispute they have now made a serious mistake," said one senior manager.

BR was considering its next move last night, but executives said they expected pressure on the union to increase rapidly as public sympathy drains away.



Speculation is growing that Simon (right) may replace Toolan

Officially, BR was saying there were no victors in the agreement reached earlier this week with Aslef, the train drivers' union, and the Transport Salaried Staffs Association, which represents white collar staff.

However, senior managers were admitting privately that the settlement represented a serious defeat on both pay and changes in the national bargaining machinery.

The NUR's decision to continue the dispute was seen as a public relations gift which would deflect much of the anger directed at senior managers by both passengers and government ministers.

"We made every mistake in the book, but this gives us an opportunity to save something from the wreckage," said one executive.

Euston House was buzzing with rumours about the future of Mr Trevor Toolan, BR's personal manager, who drew up the pay and conditions proposals which led to the dispute.

Mr Toolan was closely identified with BR's hard line at the beginning of the dispute, and was eventually overruled by Sir Robert Reid, BR chairman.

Managers pointed out that Mr Toolan's strategy had been endorsed by BR's executive directors, including Sir Robert, and there was no suggestion that he might be sacked.

There was speculation, however, that Mr Toolan would find his position intolerable following the failure of his proposals.

Sir Robert was widely thought to be safe from dismissal given his success in bringing the corporation into profit over the last five years, and his intention to retire in March.

But the outcome of the dispute was thought to increase the likelihood that the next chairman would be recruited from outside BR.

The man being most frequently mentioned by senior managers is Mr David Simon, managing director of British Petroleum since 1986, who is thought to be top of the Government's shortlist for a tough outsider.

Tough laws planned for restrictive practices

By David Churchill

TOUGH laws to tackle restrictive trade practices in UK industry and commerce, including substantial fines for both companies and directors, were announced yesterday by Lord Young, the Trade and Industry Secretary.

The Government's proposals, outlined in a policy document reforming Britain's 30-year-old restrictive trade practices legislation, will also for the first time bring the professions within the scope of restrictive practices law.

The proposed legislation will also include tougher powers of investigation for Sir Gordon Borrie, director general of the Office of Fair Trading, to uncover restrictive agreements.

These will include the powers of search and entry, using force if necessary, and are similar to those already available to competition officials from the European Commission.

But the Government has decided to give powers of enforcement, including the levying of fines, to a strengthened Monopolies and Mergers Commission.

It has decided to scrap the present system of controls of restrictive trade practices under which all agreements must be registered with the Registrar of Restrictive Trade Practices in London.

The Government believes that this system concentrates on the form of agreement rather than its effects. Thus, it has decided to bring in a general prohibition of restrictive agreements, such as price-fixing cartels, collusive tendering, market share arrangements.

Few exemptions will be made, the Government says, except for where the law conflicts with the EC and other international agreements. This means that the Channel Tunnel will not fall within the scope of the new law, although the professions will be introduced before next year and the Government also plans a period of transition to give companies time to adjust to the laws.

Details, Page 7

Baker eases path for foreign teachers

TEACHER shortages in London and the home counties were admitted by Mr Kenneth Baker, the Education Secretary, in the House of Commons last night as he made it easier for overseas teachers to obtain qualified status, writes Ivor Owen.

He announced that local education authorities would have discretion to grant qualified status to overseas teachers after they had worked satisfactorily for a single term, instead of a year, as at present.

Mr Baker envisaged that this change would be particularly attractive to teachers from Australia and New Zealand, who were already playing a significant role in schools in inner London boroughs.

He rejected Labour charges that the shortage of teachers had reached "crisis" proportions and stressed that the position varied from one part of the country to another.

But he acknowledged that the number of teachers resigning from posts with the Inner London Education Authority, some 1,439 this year compared with 1,908 last year, was still "unacceptably high."

that the shortage of teachers had reached "crisis" proportions and stressed that the position varied from one part of the country to another.

But he acknowledged that the number of teachers resigning from posts with the Inner London Education Authority, some 1,439 this year compared with 1,908 last year, was still "unacceptably high."

Government seeks to reassure Tories on tough policies

THE Government yesterday warned its supporters at Westminster they could not expect any early respite from high interest rates or tough controls of public spending as it maintains its fight to bring down inflation.

But Mrs Margaret Thatcher, the Prime Minister, and Mr Nigel Lawson, the Chancellor, sought to reassure Conservative MPs and peers that although they should not expect instant results, the Government remained confident that inflation would be brought firmly under control.

The attempt to calm mid-term nerves among their supporters came as the Prime Minister was said to be completing preparations for her planned Cabinet reshuffle, designed to boost the Government's flagging fortunes in the opinion polls.

With reshuffle speculation at fever pitch, Ministers were confidently predicting a formal announcement early next week.

They reported signs that even if, as expected, there are no changes in the three top positions, the reshuffle among other Cabinet members and in the Government's middle ranks might be more extensive than previously thought.

One insider suggested that as well as appointing a new Conservative Party chairman, Mrs Thatcher may announce cabinet-level changes in at least five other departments.

In an hour-long meeting with Conservative peers, the Prime Minister acknowledged the difficulties caused by the recent surge in inflation but delivered an essentially upbeat message on the economy and on Britain's role in the European Community.

She also promised that, with 90 per cent of its main election pledges now fulfilled, recent pressures caused by the Government's legislative programme would begin to ease.

Mrs Thatcher said afterwards that the mood of the meeting had been "excellent." Several peers agreed that although she had "mildly rebuked" them for a series of rebellions over the past year on such issues as water and electricity privatisation, the differences had not been allowed to mar the atmosphere.

There was some scepticism, however, that the legislative programme for the next session of Parliament will be significantly lighter. The Govern-

ment has already announced that it is planning major bills on the reform of broadcasting, on the overhaul of the National Health Service, and on changes to the legal profession.

The Prime Minister's traditional "end-of-term" gathering with peers will be followed by a similar address to Conservative MPs tomorrow. It coincided yesterday with separate meetings between Mr Lawson and Sir Geoffrey Howe, the Foreign Secretary, and the finance and foreign affairs committees.

Mr Lawson told members of the finance committee that the fight against inflation would take longer than some of them might hope. He voiced his determination to maintain interest rates at their present levels for as long as necessary.

He warned that the present public spending round would be particularly tough and MPs would have to accept that the Government could allocate extra funds only to key priority areas.

He sought with only limited success, however, to answer the concerns of many Conservative MPs that the planned "safety net" arrangements for the poll tax would not cause severe problems in the party's key marginal constituencies.

Speculation that the impending reshuffle may be more substantial than expected has been fuelled by Lord Young's reported decision to leave the Cabinet, and the perception that the Government needs a much brighter face in certain important areas.

So although Sir Geoffrey, Mr Lawson, and Mr Douglas Hurd are expected to remain in place, cabinet-level changes are now expected at the departments of Trade and Industry, the Environment, Transport, Education, Northern Ireland, and possibly Employment.

LEGAL NOTICES

THE HIGH COURT OF JUSTICE
IN THE MATTER OF:
ANGLO IRISH BANK CORPORATION PLC
AND IN THE MATTER OF:
THE COMPANIES ACTS, 1983-1985
NOTICE OF PETITION
NOTICE IS HEREBY GIVEN that a Petition presented to the High Court of Justice on 20 June 1989 for the confirmation of the reduction of the share capital of the above-named Company from £24,000,000 to £2,400,000 is directed to be heard before the Honorable Mr Justice PETER GIBSON at the Royal Courts of Justice, Strand, London, WC2A 2LL on Monday the 26th day of July 1989.

ANY Creditor or Shareholder of the said Company desiring to oppose the making of an Order for the confirmation of the said reduction of capital should appear at the hearing in person or by Counsel for the purpose.

A copy of the said Petition will be furnished to any such person requesting the same by the undersigned Solicitors on payment of the regulated charge for the same.

DATED this 12th day of June 1989.

Clarks, Solicitors
Great Western House,
Sutton Place, READING RG1 1SX
Solicitors for the above-named Company

F W GIBSON & CO (PAPER) LIMITED

NOTICE IS HEREBY GIVEN, pursuant to Section 93 of the Companies Act 1985, that a Meeting of the Creditors of the above-named Company will be held at 1, Wardrobe Place, Carter Lane, St. Pancras, London, EC4A 3DF on the 27th day of July 1989, at 12 noon, for the purposes mentioned in Sections 100 and 101 of the Act, that is to say:

- The nomination of a Liquidator
- The appointment of a Liquidation Committee

Proxies for use for the purpose of the above Meeting must be lodged, accompanied by the relevant share certificate, at the Registered Office of the Company, situated at 1, Wardrobe Place, Carter Lane, St. Pancras, London, EC4A 3DF, not later than 4 p.m. on the 26th day of July 1989.

Notice is also hereby given, pursuant to Section 93(2)(a) of the Companies Act 1985, that P. J. J. White & Co., 1 Wardrobe Place, Carter Lane, St. Pancras, London, EC4A 3DF is qualified to act as an insolvency practitioner in relation to the above Company and will tender its services free of charge with such information concerning the Company's affairs as they may reasonably require.

Dated this 11th day of July 1989

H W Miller
Director

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at a price of
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plus accrued and unpaid dividends,
\$96 per \$100 of 8% Convertible Debentures
plus accrued and unpaid interest and
\$100 per \$100 of 10% Convertible Debentures
plus accrued and unpaid interest

THE OFFER AND WITHDRAWAL RIGHTS UNDER THE OFFER WILL EXPIRE AT 12:01 A.M. (TORONTO TIME) TUESDAY, AUGUST 15, 1989 UNLESS EXTENDED.

168883 Canada Inc., a Canadian corporation and a wholly owned subsidiary of Olympia & York Developments Limited, is offering to purchase all outstanding Common Shares, \$5.50 Warrants, \$7.06 Warrants, Class A Preference Shares, Series 1, 8% Convertible Debentures and 10% Convertible Debentures of BCE Development Corporation ("BCEID"), a corporation continued under the laws of Canada, at \$2.80 per Common Share, \$0.39 per \$5.50 Warrant, \$0.20 per \$7.06 Warrant, \$25 per Class A Preference Share, Series 1 plus accrued and unpaid cumulative dividends to the day immediately prior to the day on which such shares are taken up, \$96 per \$100 of 8% Convertible Debentures plus accrued and unpaid interest to the day immediately prior to the day on which such debentures are taken up and \$100 per \$100 of 10% Convertible Debentures plus accrued and unpaid interest to the day immediately prior to the day on which such debentures are taken up, all net to the seller in cash, upon the terms and subject to the conditions set forth in the offer and offering circular dated July 14, 1989, the related letters of transmittal and acceptance and notices of guaranteed delivery.

The offer, in the case of each class of securities (other than the Class A Preference Shares, Series 1), is conditional upon, among other things, (i) at least 90 percent of the issued and outstanding Common Shares, excluding Common Shares held at the date of the offer by, or by an associate or affiliate of, the offeror, being validly deposited and not withdrawn prior to the expiry of the offer and (ii) at least 66% percent of the outstanding \$5.50 Warrants, \$7.06 Warrants and 8% Convertible Debentures, excluding any such securities held at the date of the offer by, or by an associate or affiliate of, the offeror or by BCE Inc., being validly deposited and not withdrawn prior to the expiry of the offer.

The offer in the case of the Class A Preference Shares, Series 1 is conditional upon (i) the Common Shares being taken up by the offeror under the offer and (ii) at least 90 percent of the issued and outstanding Class A Preference Shares, Series 1, excluding Class A Preference Shares, Series 1 held at the date of the offer, or by an associate or affiliate of, the offeror, being validly deposited and not withdrawn prior to the expiry of the offer.

The offer and offering circular and related letters of transmittal and acceptance and notices of guaranteed delivery contain important information which should be read before any decision is made with respect to the offer.

The offer has been made to all registered holders of Common Shares, \$7.06 Warrants, Class A Preference Shares, Series 1, 8% Convertible Debentures and 10% Convertible Debentures at the address of such persons as it appears on the applicable registers of BCEID. Holders of the \$5.50 Warrants, which are bearer warrants, may obtain copies of the offer and offering circular and the letters of transmittal and acceptance and notices of guaranteed delivery from any of the dealer managers, ScotiaMcLeod Inc., Wood Gundy Inc., RBC Dominion Securities Inc. and BBN James Capel Inc. or from the Depository, The Royal Trust Company at any of its offices set out below.

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We recommend that holders of the aforementioned securities accept the offer

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TECHNOLOGY

Rubbish is perhaps the most visible brand of pollution and plastic packaging is regarded as one of the worst offenders because some forms are virtually indestructible. This has left the makers of plastic packaging under the green searchlight when questions are asked about recycling. In response, companies in the \$150bn-a-year plastics sector have been seeking ways to ensure that their materials do not cause environmental problems after use.

Chipping away at a mountain of rubbish

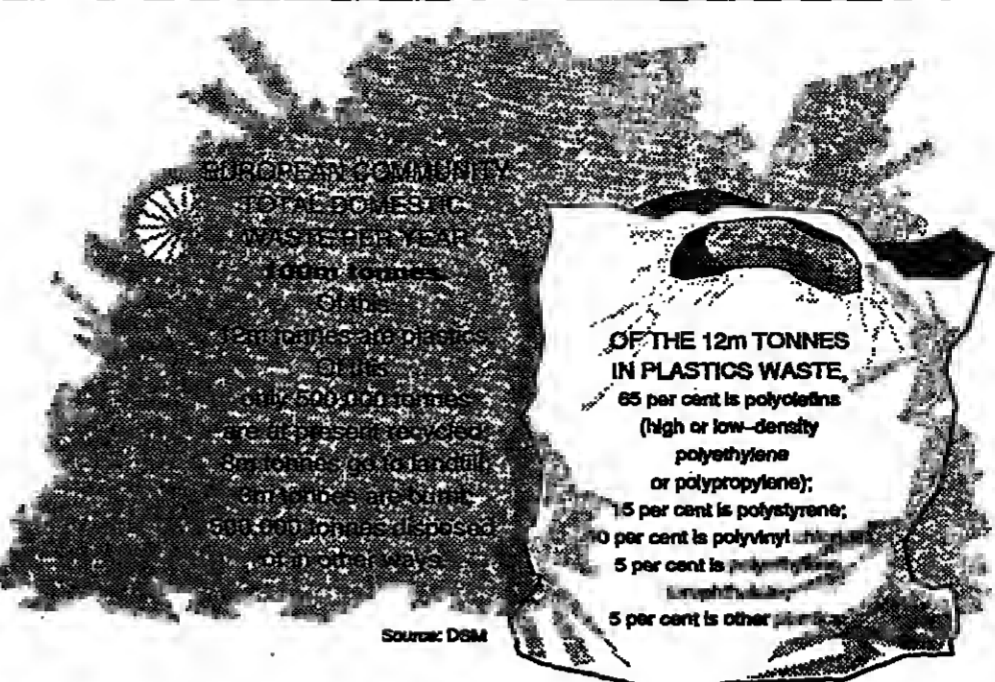
Peter Marsh explains the difficulties that make plastics recycling such an uphill struggle

There is also a strong economic argument. If plastics waste can be recycled efficiently, it will create a new source of raw material. "We are not doing this (recycling) out of any altruistic purpose," says Jerry Khrens, a Du Pont marketing manager. "We are confident we can make money out of it."

Some recycling of plastics does take place, mainly in the industrial field. In the UK, 5 per cent of the 3m tonnes of plastics used each year is reprocessed, according to the British Plastics Federation. Most of this activity involves collecting plastic scrap and used sheeting and selling it to the makers of packaging.

In the UK, some 30 companies take significant volumes of plastic from this source and use it in new packaging - from bin liners to food trays. These companies include Scott & Robertson and Polymer Technologies International, both of which are investing heavily in their washing and rehauling plants needed for such operations.

Recycling such products is difficult because of the need to "unscramble" the different plastics from the mix. So most recycling initiatives concentrate on specific items known to contain single plastics, for example drink bottles made from polyethylene terephthalate (PET), a hard plastic chemically related to polyester fibre, washing-up bottles that consist of high-density polyethylene and industrial packaging incorporating low-density polyethylene film.



Source: DSM

Even when plastics are separated from other waste, most recycling operations still need some form of screening to ensure that, say, PVC and PET are not mixed up. This can be done by froth-floatation, which takes account of discrepancies in the density of different plastics. The process resembles the separation systems used for ore and rock in mining. A more sophisticated screening technique, based on chemical analysis, employs a spectrometer to detect differences in the atomic structure of plastics.

There may be problems in ensuring that the plastic obtained is of a high enough quality, especially if the final object has to be strong enough to bear any sort of load. Plastics companies are tackling this by looking at different additives to enhance the properties of the recycled material.

Although many observers believe that the technology is not up to sorting plastics from ordinary domestic waste, some groups are willing to try. They are motivated by the thought that a foolproof and reasonably cheap way of separating plastics from other rubbish would yield useful volumes of recyclable material from existing waste collection operations.

Direct line to data from parliament

A DIAL-UP index of UK parliamentary proceedings, including select committee reports and European Commission publications, is now available to the public.

Polis (the parliamentary on-line information system) can be reached by direct dialling or at local call rates via British Telecom's Packet Switch System.

The new public service is an extension of a system, run by Meridian Systems Management (MSM), which is already available at the Houses of Parliament. About 40 terminals there are connected to the system via two British Telecom Kilostream lines. MSM also staffs a support line at its office in Bromley, Kent.

The system is updated after every parliamentary sitting. Index entries typically contain the Hansard date, volume and column reference, the names of the Government departments and MPs concerned, an index key assigned by the Commons Library and a brief description.

The user can search the index either by entering a short generic key to pick up all entries for a given subject, or by creating a composite key to select references to a specific MP between certain dates. Data are retrieved in reverse order to give the most recent record first. The database has a built-in thesaurus of synonyms; a search relating to the community charge, for example, will automatically include any references to the poll tax.

At present, many companies rely on personal contacts for information, but Polis should offer a more reliable and complete source of business-related legislation.

Thomas Land

Andrew Cowie

New weather prediction technologies are expected to provide a life-saving flood warning system for poor countries, such as Bangladesh, which cannot afford to build giant sea defences.

Weather forecasting takes on a life-saving role

A computer modelling scheme, intended to protect large populations in low-lying regions from rising sea levels, has been pioneered by Britain's Natural Environment Research Council (NERC). Very long range weather prediction should also benefit navigation, commodity trading, agriculture and construction.

Computer modelling could have saved perhaps 10,000 lives last year when the worst cyclone in the history of Bangladesh swept across the low-lying southern part of the country. One of the world's poorest and most densely populated nations, it had been hit just three months earlier by flooding caused by rainfall. Climatic changes due to the greenhouse effect could increase the frequency of such disasters.

Traditional flood problems have been dealt with by massive, expensive dams. Improved weather forecasting, flood risk analysis and mapping offer an alternative because the early warning would enable such measures as evacuation.

Roger Flather, of the NERC's Proudman Oceanographic Laboratory, explains: "Coastal floods produced by tropical cyclones in the Bay of Bengal constitute one of the greatest natural hazards. The only practical means of saving life is to develop computer models capable of simulating and predicting the water movements and associated sea level changes in the region, backed by effective local warnings."

research ship would work with the Bangladesh Inland Water Transport Authority and the Canadian Department of Fisheries and Oceans. His proposals may be reconsidered shortly under a global disaster management programme and a study of sea levels, which have been launched by the London-based Commonwealth Secretariat. These programmes coincide with preparations for the International Decade for Natural Disaster Reduction in the 1990s.

and satellite images would be used with the surge models to give accurate flood predictions. Accurate, global, long-range weather prediction has been made possible by computer modelling of El Niño - a change in the atmospheric circulation pattern which occurs at irregular intervals of up to eight years. The present Niño is blamed for floods both in Bangladesh and the Sudan. The same phenomenon is responsible for such disasters as the recurring monsoon failures in South-East Asia and floods in Central and South America.

The 1982-83 Niño wiped out crops and ravaged the western seaboard of the Americas by persistent storms, destroying much of the anchovy harvest. In Australia, the associated southern oscillation led to severe drought, furious bush fires and dust storms which carried away 200,000 tonnes of topsoil.

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Hindustan Lever

Flexing its competitive muscles

Having been constrained for many years by the country's trading restrictions, one of India's largest multinationals now plans to take full advantage of increasing deregulation. David Housego reports

When Ashok Ganguly takes a look at the prospects for foreign multinationals in India he likes what he sees. Ganguly is the chairman of Hindustan Lever (HL), the Unilever subsidiary based in Bombay, which is the country's largest foreign multinational with interests in soaps, detergents, chemicals, toilet goods and agricultural products. Add in Unilever's other subsidiaries in India - including Lipton, Brooke Bond and Ponds, with which HL has various management, research and marketing tie-ups, and you have total sales of more than Rs20bn (\$770m). In terms of turnover, that puts Unilever on a footing with India's largest domestic groups.

In the past, HL felt that its growth was impeded by the Indian Government's licensing restrictions on the expansion of all large companies, and by the need to trim its strategy to comply with the FERA rules (Foreign Exchange Regulation Act) on Indian subsidiaries of foreign companies.

But with deregulation increasing, the purchasing power of the middle class (defined as the top 250m people) growing at 2 to 7 per cent a year in real terms, and a rising demand for quality consumer products, "the opportunities are now manifold," says Keki Dadiseth, the finance director.

HL is in a good position to take advantage of them. Over 65 per cent of its Rs10.7bn per cent turnover is in soaps and detergents. According to Shoun Sen, vice president for marketing, demand for these products is expanding at between 6 and 8 per cent a year, or three or four times faster than the growth in population.

As one of the giants on the Indian corporate landscape, HL has the marketing and financial muscle to increase its market share at the expense of its competitors. A more deregulated environment is now offer-

ing the possibility of expansion through acquisition. "We intend to be fairly aggressive in this area," says Dadiseth.

HL has other strengths as well. It can take its pick of some of the best managerial talent in the country because it offers not only a broad career structure in India - but also access to Unilever's international operations. Some 30 Indians hold senior posts abroad. "We are like a university," says Irfan Khan, public relations manager. "Those who have not been to anywhere else being with us."

It has an unrivalled distribution network, with more than 3,000 stockists enabling it to penetrate remote corners of the country with fertilisers or detergent powder. "You can find our goods in any market or village," says Dadiseth.

It has the largest research and development laboratory of any private sector company in India. It has developed a cream, Fair and Lovely, that turns dark skins pale and which has had tremendous popularity in India and Africa. Spending on R&D has uncovered ways of substituting unconventional oils found in India for widely used soap ingredients.

With profits before tax averaging 8 to 9 per cent of turnover in recent years and a debt to equity ratio of 1.3, it has a financial solidity that gives it a strong borrowing capability for any future expansion. "We are like the Bank of England," claims Dadiseth.

Says a senior executive: "We have done very well in a protected environment. We will do much better in a competitive one." Over the past five years HL's return on equity has

grown from 15.4 per cent to 23.7 per cent.

A low profile, conservative group, HL has long shunned publicity and safeguarded its position in India by keeping its sights firmly fixed on the long-term horizon. It faced a difficult test in the early 1970s when the Indian Government brought in the FERA laws requiring foreign companies to bring their shareholding in Indian subsidiaries down, normally to 40 per cent. HL was 85 per cent owned by Unilever.

While companies like IBM left India rather than comply and others fell in with the 40 per cent requirement, HL fought for 10 years to maintain a Unilever stake of 51 per cent.

The arguments of its Indian management - which events have since justified - were that HL would gain in terms of access to technology, career openings for managers and the international experience that comes from being part of a global group, with Unilever holding a 51 per cent stake.

At the time the price for Unilever retaining control seemed heavy. HL had to agree that 60 per cent of its business would be in what was called the "core" or priority sector and 10 per cent in exports.

Ganguly always maintained that the necessary restructuring suited HL's strategy. He sold the edible fats, dairy and animal feeds activities to Lipton, another Unilever subsidiary, thus transforming what was a one product and too narrowly based tea concern into a broadly based food processing company. HL also expanded laterally into chemicals and agricultural products (fertilisers, plant feeds and hybrid seeds), enabling HL to gain a foothold in rural India. Within

18 months it had regained the 25 per cent of turnover lost in the sale to Lipton.

More difficult was the challenge it had to face in the early 1980s when a new low-cost producer began making deep inroads into the detergent market. HL was overwhelmingly the market leader with a high priced, quality product in Surf. The success of Nirma, producing out of backyard workshops, was to develop a low cost detergent to replace the washing soaps traditionally used in India - and at a price far lower not only than Surf but traditional laundry soap also.

Nirma's lightning expansion led to an explosion in demand for detergents. Surf's sales grew more rapidly - rising from an annual 5 per cent growth to 15 per cent on the back of this. But HL had no brand with which to compete in the dramatically expanding lower end of the market.

Ganguly argues that HL's hands were tied because it was unable to obtain the licences to build additional capacity and thus it was best to concentrate on the upper end of the market where value-added was greatest.

Ingenuity and deregulation eventually came to HL's assistance. New detergent makers which sprang into existence on the back of Nirma's success went bankrupt because they lacked the distribution back-up. HL began taking over these units on a leasing basis - thus adding capacity for detergents of similar quality to Surf in both powder and bar form at no cost, and earning good marks with the authorities for preserving jobs.

HL has leased three detergent and soap plants which it

is now running at full capacity and taken a 51 per cent stake in one, Stepan Chemicals in the Punjab, purchased at an almost nominal price. Summing up HL's leasing expertise, Dadiseth says: "If you can milk a cow without buying it, you should not buy it."

Deregulation since 1985 has allowed the group to build additional capacity as well. By 1988, HL felt ready to take on Nirma in the lower segment of the detergent market. It developed a new product, Wheel, from local raw materials, claiming it was better and gentler than Nirma. Wheel was launched with a massive advertising campaign and at the same price as Nirma in 1987/88.

Sales are now running at the level of 100,000 tonnes a year according to Sen and will rise to 250,000 next year. By then, HL hopes to have regained a third of the market in detergent powders and bars in volume terms (up from 20 per cent at the moment), and "will be market leaders in value" - with a 45 per cent share compared with 23 per cent.

The expansion of capacity has also helped HL towards a solution of another thorny problem. Wages had been increasing at its Bombay plant, one of the largest in the group, at 15 per cent a year. Notwithstanding Rs300m investment in modernising the factory, its productivity record was the worst of all HL's plants.

Ganguly long felt that a conflict was inevitable at Bombay, but that the management was in a weak position while there was a substantial shortage of capacity. The conflict erupted last year when strikes began in pursuit of wage demands that the company claimed would have almost tripled wage costs. HL declared a lock-out. A year ago, on June 23, the lock-out ended and workers returned.

With the prospect of increased de-licensing and changes in the FERA regulations, HL now feels that government interference will be less and less stand in the way of what it wants to do. Dadiseth says: "If somebody tells me today that he cannot do something because of the law, I



A S Ganguly



S Sen



K B Dadiseth



R Gopalakrishnan

Management abstracts

Skill shortages and adult industrial training. A Roberts and M. Cooke in *Industrial and Commercial Training* (UK), Sep/Oct 88 (6 pages).

Discusses, quantifies and deplores skill shortages which restrict the application of new technology, and explains the contribution now made to open learning facilities, viz. the Open Tech, the Open College, and the Open University. The application of the first of these at Austin Rover is discussed at some length. Provides an extensive list of references (47 of them, to be precise). New competition in the service economy. C. Grimross in *International Journal of Operations and Production Management* (UK), Vol 8 No. 3 88 (11 pages).

Traces the increasing importance of the service sector and argues that manufacturing will increasingly need to rely on service functions to compete, because anyone can make the goods but competitive advantage will depend on the like of technical service and customer training. Believes that the key to success in modern business lies in improved service know-how, and provides five "rules" of service. These cover employee commitment to customer requirements and to marketing the firm's products at every point of customer contact, demand analysis, quality control and organisational support. Emphasises the approach is valid for both service and manufacturing sectors.

Conquering evaluation fear. M. Cayer and others in *Personnel Administrator* (US), June 88 (7 pages).

Believes that appraisal does not contribute as much as it might do to improving performance, because of managers' emotions (nobody likes to convey bad news) and lack of skill/confidence; advocates rational effectiveness training (RET) as a means of overcoming these emotional blocks. According to RET, the troublesome emotions and poor supervisory behaviour result from baseless/exaggerated beliefs and thoughts; gives an example of RET techniques and lists benefits of RET training - identification of uncomfortable appraisal situations, recognition of ineffective actions and avoidance of procrastination.

Profit growth last year was depressed by drought, higher raw material prices and the increase in marketing expenditure. Ganguly has already announced a substantial improvement in profits in the first months of this year. The company sees this as a harbinger of the good times ahead.

These abstracts are condensed from the abstracting journals published by Ashok Management Publications. Licensed copies of the original articles may be obtained at a cost of Rs each (including VAT and postage) from Ashok, PO Box 24, Worthing HA2 8LZ.

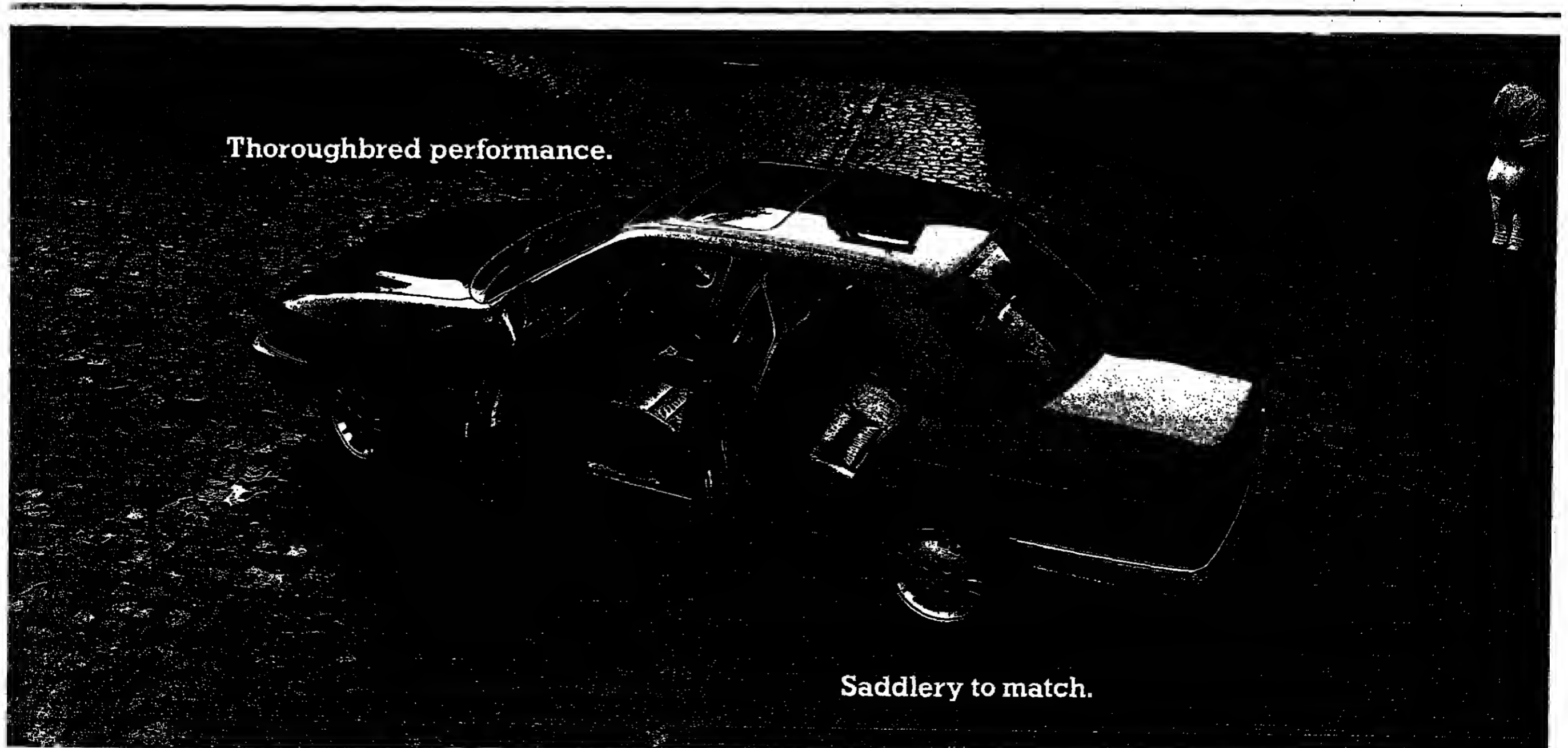
Unilever companies in India - 1988 (Rs 00,000s)

	Sales	Profit before tax
Hindustan Lever (including Indesport)	107,895	8,383
Brooke Bond India	38,757	4,014
Lipton India	38,188	1,403
Ponds India	8,708	488
Tea Estates India	2,546	570
Doon Doona India	1,782	444
Quest International India	1,431	146
TOTAL	200,258	15,448

Hindustan Lever breakdown of sales 1988 (%)

Soaps	43.8
Detergents	25.1
Personal products	6.8
Chemicals	13.2
Exports	12.3
Plant nutrients, animal feed etc	6.8
TOTAL	100.0

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How to recognise an overstressed worker

By Michael Dixon

HAVE you patted yourself on the back for a bit of work you've done recently? If you have, all well and good. But if not, be warned: you may be headed for trouble.

One of the first things people do when they become overstressed is to stop commending themselves on their achievements, says Dr Victor Meyer, a behavioural psychotherapist specialising in treating the victims of such afflictions.

His talk on stress at a London seminar held by the Paycorp consultancy the other day included a list of four more telltale tendencies. One is comparing yourself disadvantageously with other people. A second is fearing criticism.

"A less obvious one is fear of praise. When severely anxious people are praised for an achievement, they take it as meaning they're expected to achieve still more," Dr Meyer explained.

"Fourthly, they make self-disparaging interpretations of events. Even if something happens which shows that someone else approves of them, they often decide the other person must be stupid and 'don't count'."

He added that there are also typical ways in which the overstressed react to their plight. The half dozen

most common "ploys" are:

- 1 Withdrawing socially, making themselves less and less accessible to other folk.
- 2 Obsessively checking things again and again.
- 3 Fishing for compliments.
- 4 Doing something to make a good first impression, then running away from the situation.
- 5 Being flippant, treating everything as a joke.
- 6 Being aggressive, not just purposefully as a means of getting something they want, but apparently for aggression's own sake.

The trouble with such lists of symptoms is that they are apt to set perfectly healthy people thinking they have them. So Dr Meyer offered a further diagnostic aid. "Even if you suspect you have the whole darned lot, the acid test is whether it really worries you. If so, you may need help. Otherwise, forget it."

He added that, provided sufferers recognise they have a problem before it becomes severe, they can often cope with it themselves by a method called "flooding".

At the end of his war service as a fighter pilot, for example, combat flying became so stressful to him that he developed a stomach ulcer.

"On my first peacetime flight to America in the 50s - the old symptoms started to come back. By then I was far enough on in my studies to know about flooding. So I closed my eyes and made myself imagine, slowly and in detail, the worst that could happen. When I looked up again, a lovely woman was smiling at me and asking what I'd like to drink. I immediately felt complete relief."

But even if the problem has reached a stage where professional help is needed, the treatment can have its pleasant aspects. For instance, not long ago Dr Meyer was called in by a senior executive whose overstressed state had developed into a terror of using lifts, including the one to his office on the top floor of a high building.

"When I found he was a gourmet, it wasn't hard to prescribe the treatment," the doctor said. "We called in some first-class caterers in the evening and made him a superb dinner: everything he wanted just as he wanted it. The piece of the meal to him was that he had to eat it going up and down in his office's lift - which he did."

"We then repeated the process on later evenings, each time arranging for the meal to be just a little less enticing than on the previous occasion. But well before it got down to a company canteen standard, his phobia of lifts had disappeared."

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In view of the probable salary - although no figure is quoted, I doubt that it can be more than about £50,000 - the college's best hope may lie with top business executives who have taken early retirement. The sole perk is a spacious flat in South Kensington.

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As the need to earn cash has changed Mr Smith's job greatly, it is being re-named "managing director". But lest that be considered too shameless a concession to commercialism, the newcomer will still report to the "rector" Professor Eric Ash.

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Mergers and Acquisitions
£23,000 Plus
Our client, one of the world's largest banks, is seeking an exceptional graduate to join their M & A Department. Aged in your mid-20's you will have a minimum of 2 years as a graduate trainee including credit, capital markets and support work. The successful candidate will enjoy a challenging training which will lead to the development of a senior marketing role.

Credit Analyst
To £25,000 Plus
We have a number of positions available with leading world banks for ambitious young analysts. Successful candidates must be graduates with 1-3 yrs. experience which has encompassed all aspects of credit including spreadsheet analysis and risk management. An American credit training is preferable.

For further details of these and many other vacancies please contact Richard South on Julie Byford on (01) 583 0073 Fax No. (01) 583 5988. 16-18 New Bridge Street, Blackfriars, L1 and on EC4V 6AU.

BADENOCH & CLARK
recruitment specialists

Transactions
Recent law graduate or newly-qualified lawyer
We currently have a vacancy within our expanding Corporate Finance and New Issues Department for someone to join our transactions team. As the market leader, Nomura is able to offer applicants a wide range of experience, in an extremely demanding environment. Instruments covered concentrate on straight bond and equity-related issues, but will include exposure to commercial paper programmes, MTNs, swaps and a growing presence in the euro-equity market.
Ideally, you will have up to a year's documentation experience in one or more of the areas mentioned above. However, recent law graduates or newly-qualified lawyers who wish to start a career in this field are encouraged to apply. The pace of work is often extremely hectic, and the successful candidate will rapidly be given considerable responsibility. The ability to set priorities, to meet deadlines, and to integrate into a well-established team are all essential qualities. Success will lead to considerable opportunities for career progression within the section or within other areas of corporate finance.
In return we offer a competitive salary and an excellent benefits package, together with the security of working for one of the world's leading financial organisations.
Please send a full CV including salary details to:
Rob Ambridge, Personnel Department,
Nomura International plc,
24 Monument Street, London EC3R 8AL

M & A PRACTITIONERS

International M & A advisory firm is expanding its UK presence. The firm is a leader in middle market, cross-border acquisition advice with full service offices in the US, Asia and throughout Continental Europe. The following applicants should send their C.V. to receive more details:
1. An experienced deal-maker to head up the UK practice, to be compensated as a partner.
2. Other M & A professionals with three years minimum working experience willing to match colleagues twelve hour days.
In addition to possessing financial skills, all applicants must be highly entrepreneurial.
Write box A1290
Financial Times,
One Southwark Bridge
London SE1 9HL

Appointments

Advertising

For further information
call 01-873 3000
Deirdre McCarthy ext 4177
Paul Maraviglia ext 4676
Elizabeth Rowan ext 3456
Patrick Williams ext 3694
Candice Raymond ext 3351



Project Finance Director

& Exceptional Package

City

An outstanding and entrepreneurial project financier is required to establish and run this new business area within a successful and fast growing City corporate finance company.

THE COMPANY

- ◇ Fast growing asset and corporate finance advisers with outstanding international reputation.
- ◇ Part of quoted group with diversified interests in investment, broking and financial services.
- ◇ Entrepreneurial, un-bureaucratic culture.

THE POSITION

- ◇ Board level appointment.
- ◇ Total responsibility for new business area.
- ◇ Planning and implementing the application of the company's finance structuring skills to Project Finance.

QUALIFICATIONS

- ◇ Exceptional project finance talent and experience gained in a quality banking group or corporate sector.
- ◇ Entrepreneurial flair, drive and management skills.
- ◇ Intellectual agility and preferably relevant professional qualifications.

THE REWARDS

- ◇ A very substantial package, tailored to attract the best in the field.
- ◇ Significant profit and/or equity participation.

Please reply in writing, enclosing full cv.
Reference BH2873.
54 Jermya Street, London SW1Y 6LX.

LONDON - 01-493 3383
BIRMINGHAM - 021-233 4656
SLOUGH - (0753) 694844
HONG KONG - (HK) 5 217133

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Head of Compliance

Financial Services Group

c£30,000 + bonus + options

London

Diverse and expanding international group of companies in the financial services sector seeks a young lawyer, expert in compliance, to join management team.

THE COMPANY

- ◇ Exceptionally successful and growing international business.
- ◇ Established four years with an impressive track record and talented team of professionals.
- ◇ Dynamic, fast moving and demanding environment.

THE POSITION

- ◇ Ensure total compliance of company activities with the Financial Services Act.
- ◇ Company Secretarial duties for the various group companies, including working on their future acquisitions.
- ◇ Provide legal advice to executives and assist on a wide range of corporate matters.

QUALIFICATIONS

- ◇ Qualified lawyer aged 25-32 with extensive knowledge of FSA, TSA and IMRO requirements.
- ◇ Experience in compliance in either financial services or the Profession.
- ◇ Ambitious, determined individual who combines strong technical skills with commercial awareness.

THE REWARDS

- ◇ Salary and a very comprehensive benefits package including car, bonus and stock options.

Please reply in writing, enclosing full cv.
Reference H2672.
54 Jermya Street, London SW1Y 6LX.

LONDON - 01-493 3383
BIRMINGHAM - 021-233 4656
SLOUGH - (0753) 694844
HONG KONG - (HK) 5 217133

SELECTION LTD

SALES EXECUTIVE - CITY

Financial i, the leading producer of information and training videos designed specifically for the international financial community, wishes to expand its sales team with the appointment of another Sales Executive to take responsibility for selling its products to major banks and financial institutions in the City.

The successful candidate will have a thorough knowledge of the City, and will possess keen selling skills. Preferred age range is 30-50.

Please reply to Colin G. Sullivan, Head of Sales.

Financial i Ltd
250 King's Road
London SW3 5UE
Tel (01) 351 6955
Fax (01) 351 6950



INVESTMENT AND PORTFOLIO MANAGERS

An international asset management group wishing to expand is looking for small teams of investment or portfolio managers, with existing clientele, who would like to gain independence and accumulate capital by joining their London office.

Box A1284, Financial Times,
One Southwark Bridge,
London SE1 9HL.

ACQUISITIONS DIRECTOR

Property trading and investment
North London
package to £50,000 +
share option + benefits

THIS RAPIDLY EXPANDING, highly profitable and recently-quoted USM company's main business activities include property trading and refurbishment, and property investment. Its ambitious growth plans, particularly over the next 5 years, mean that it now requires a high-calibre Acquisitions Director to be responsible for all future acquisitions - from

initial inquiry right through the negotiation process - of other businesses and/or property companies and their portfolios. Success in this key position will lead to a Board appointment in a short period.

This challenging yet rewarding role calls for someone aged 30-35 with, ideally, an MBA (or equivalent) qualification, and considerable acquisitions experience ideally gained in either a merchant banking or property-related environment. Good negotiation skills, drive, and enthusiasm are important attributes.

Please send cv, in confidence, indicating present salary, to Susan Port, Ref: 3574/SP/FT, PA Consulting Group, Hyde Park House, 60a Knightsbridge, London SW1X 7LE.

PA Consulting Group

Creating Business Advantage

Executive Recruitment • Human Resource Consultancy • Advertising and Communications

SPOT TRADERS

£40,000 +

Due to unprecedented demand we invite enquiries from experienced intraday traders with a firm commitment to career progression.

Our clients comprise major and revered trading names who wish to complement existing highly active and profitable dealing teams by the appointment of traders with first class track records.

Ideally you will have a minimum of 4 years actively trading a major currency or the crosses; this experience having been gained with quality dealing teams.

Due to the calibre of our clients, prospects and security may be considered potentially high.

Initial applications to Nigel Hulbert.

THE ROGER PARKER ORGANISATION LTD

BOWL COURT, 231 SHOREDITCH HIGH STREET, LONDON E1 6PJ
TEL: 01-247 7632. FAX: 01-247 1411

AIRCRAFT FINANCE

Our client a major international bank currently seek a London marketing orientated team leader, to maintain and the bank's on and off balance sheet financings. Experience must include the capability to source, package and sell down, high value UK and international aircraft financings both as a principle and as an arranger. Applicants should be graduates aged 30-37 years. Salary v. neg. £50,000 + benefits.

MARKETING MANAGER SALES AID/MSP

Two major names in the field of hi-tech sales aid/operating leases seek applicants, probably graduates aged 28-35 years skilled in dealer/supplier major account relationships, strategy, product, development and in credit appraisal. Salary neg. £40-£50,000 + benefits.

CHIEF ACCOUNTANT

A qualified accountant or AGIB with several years' in depth banking accounting, covering all statutory and management accounts and reporting, overseeing reconciliations, computer and responsible for the smooth running of a small accounts department in an international bank. Reporting to Financial Controller.

ADRS/SALES MARKETING

An established international bank seeks a high calibre graduate banker aged 27-35 with proven success to date in marketing/sales role. Ideally would be ADR experienced but serious consideration will be given to high profile candidates with marketing experience gained from within investments, bonds or corporate finance sectors. Salary v. neg. £25-£40,000.

SENIOR DEALER SPOT EXCHANGE

Really excellent dealing and management skills are desirable to succeed in a demanding and challenging position in a new dealing room - reporting to Dealing Room Manager. Salary £40-£60,000.

SENIOR FOREIGN EXCHANGE FORWARDS SPECIALIST

An experienced forwards dealer is being sought to join a new and expanding European bank dealing team. Good general background essential. Salary £30,000.

OLD BROAD STREET BUREAU LTD
STAFF CONSULTANTS
65 London Wall, London EC2M 5TU
Tel: 01-588 3991, Fax: 01-588 9012

FINANCIAL CONTROLLER - INSURANCE READING

The Insurance Marketing Services Division (IMS) of Hogg Robinson & Gardner Mountain Insurance Brokers Limited is seeking to appoint a Financial Controller by September 1989. This rapidly developing Division specialises in the creation and administration of affinity Group insurance programmes.

The successful candidate would be responsible for a wide range of accounting functions. He/she will also be responsible for high volume entries onto a digital computer system, liaising with in-house specialists over systems requirements, hardware and PC's.

Working in tandem with the Managing Director (IMS) and reporting to the Group Finance Director, the Financial Controller heads up a four-strong team providing information and advice on all related financial concerns.

Applicants for the position should be qualified Accountants with proven commercial and computing experience. Technical ability, commitment and motivation are as essential as a "hands on" operating style.

You would expect a benefits package including:

- Salary up to £25k depending on age and experience
- Performance related bonus
- Company Car
- Other excellent benefits associated with a major British financial services organisation.

Apply in confidence, including a comprehensive CV and salary history to:

Cleo Bowen (Mrs), Recruitment Officer,
Hogg Robinson & Gardner Mountain
Insurance Brokers Limited
Lloyd's Chambers, 1 Portoken Street
London E1 8DF



بنك الرياض RIYAD BANK

Riyad Bank, one of the largest and most prominent Banks in the Middle East is seeking to recruit qualified individuals for the following positions at its Head Office in Riyadh:

EQUITY INVESTMENT MANAGER

As the Manager of the department you will have responsibility for:

- Developing the client investment functions of the bank as well as the size and quality of the client base.
- Further development of investment products including discretionary portfolio management, mutual funds, etc.
- Conducting investment research on Saudi stock companies and markets as well as special projects.
- Strategic planning of human resources, training, systems and structure of the department.
- Supervision of staff and all other operational functions.

The ideal candidate will have approximately seven years sound investment banking background with an emphasis on marketing and at least three years management experience. Essential skills must include market research, planning and portfolio investment strategy formulation. A mature, adaptable outlook and previous work experience in the Middle East is desirable.

CORPORATE FINANCE MANAGER

As the Manager of the department you will have responsibility for:

- Developing and implementing a marketing strategy aimed at soliciting and sustaining relationships with major corporations and institutions.
- Proposing, structuring and finalising a wide variety of products, such as syndicated credits, trade and project finance, leveraged transactions and leasing.
- Supervising staff and operational functions.

The position demands a mature individual with at least five years experience in investment banking at a major financial institution. The successful candidate should have sound marketing and credit skills. Prior Middle East experience is an advantage. These positions carry a fully competitive salary and expatriate benefits package.

Please submit your applications in confidence to:
The Assistant General Manager (Personnel),
Riyad Bank, Head Office, P.O. Box 23622,
Riyadh 11416, Saudi Arabia.

APPOINTMENTS ADVERTISING

Appears every
Monday Wednesday and Thursday

for further information call
01-873 3000 (Ext 3694)

ORMOND COLLEGE



THE UNIVERSITY OF MELBOURNE
THE MASTER

Applications are invited from men and women for the position of Master (in Head of the College).

Ormond College was founded in 1881 as a residential College affiliated to the University. It is related to the United Church in Australia.

The College has 369 members (men and women), including Fellows, tutors, and postgraduate students, and maintains a extensive academic programme. The College grounds cover over 10 acres attractively landscaped and the Master's residence, a modern family dwelling, is located there.

Candidates should have appropriate academic qualifications and be prepared to play a part in the general life of the University.

The remuneration package will be negotiable around A\$80,000 per annum. The Master's residence is provided as part of the package. The appointment in the first instance will be for a term of years. It is hoped that the successful applicant might take up duties in the first half of 1990.

A Paper of Information is obtainable from the Chairman, Ormond College Council, Ormond College, Parkville, Victoria, 3052, Australia, (Telephone: (03) 348 1688 Facsimile: (03) 347 3084), or from Appointments (36417), Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF, UK.

Closing date for applications is 23 September 1989.



Allied Provincial Ltd

MEMBER OF THE INTERNATIONAL STOCK EXCHANGE
MEMBER OF THE SECURITIES ASSOCIATION

Due to our continued expansion we require specialised overseas settlement staff in the following departments:

EUROBONDS • OVERSEAS DELIVERY

DIVIDENDS • RIGHTS

CURRENCY RECONCILIATIONS

NOMINEE

UK TRANSFER CLERK

Application forms for the above positions based in Glasgow can be obtained by writing to:

J.T. Archibald,
Allied Provincial Limited,
155 St. Vincent Street,
Glasgow G2 5NN

SECURITY SETTLEMENTS

We are an International Investment Management Firm looking for an experienced, energetic and motivated individual to join the settlements team with responsibility for security settlements, portfolio accounting and client reporting.

The position calls for direct experience of IMPART spreadsheet software and dealing with multi-national, multi-currency portfolios.

Do not apply if you lack energy, enthusiasm for electronic support systems and at least three years relevant experience.

Salary: Commensurate with experience.

Please send your CV to:

Paul Nesbitt, Mellon-Pictet International Management Limited, Cudgers Gardens, 5 Devonshire Square, London EC2M 4LD.

Members of FIMBRA

COMMONWEALTH BANK OF AUSTRALIA

TREASURY STAFF

The CBA is a major Australian bank with an established presence in the London foreign exchange and money markets. We are seeking to consolidate our position in the major markets and to take on junior dealers with some trading experience to satisfy our future needs.

We invite applications for the following positions:-

- Junior spot dealer
- Junior forward dealer
- Trainee dealer

The persons we are looking for are likely to be in their early twenties and the jobs on offer present an opportunity for bright young people with energy and enthusiasm to join a team that has grown significantly in recent years and is likely to continue to expand.

Also being sought is a:-

- Graduate trainee

This person should be a recent graduate and will join our Treasury Services group which provides administrative support to the trading operations. A good quality commercial degree with strong emphasis on economics and/or law is preferred.

Competitive salary packages embodying the usual banking benefits apply. In the first instance please send your curriculum vitae (CV) to:

The Personnel Manager
Commonwealth Bank of Australia
8 Old Jewry
London EC2R 8ED

COMMONWEALTH BANK OF AUSTRALIA

**\$A/\$NZ BOND SALES
European Client Base**

The Chance to Specialise with the Market Leader

If you are currently selling the same general product as many others here is an opportunity to become a specialist. You will be joining Australia's leading investment bank with a commitment to a region which is one of the fastest growing in the world. The bank has a strong research capability and is ideally placed to provide comprehensive knowledge and tailored services to an international client base. To be a candidate you need at least two years fixed income sales experience dealing with European institutional investors. Although not essential you will ideally be fluent in a European

language and already have some experience in sales of \$A and \$NZ products. A highly competitive salary is offered with significant bonus potential. More importantly you will have the opportunity to work in an investment bank which is not trying to be all things to all people but which is committed to excellence in its area of specialisation.

To apply please write in confidence to Louise Gore at John Sears & Associates, Executive Recruitment Consultants, 2 Queen Anne's Gate Buildings, Dartmouth Street, London SW1H 9BP Fax No. 01-222 3445 or telephone her on 01-222 7733.

John Sears and Associates A MEMBER OF THE **SMCL** GROUP

TREASURER

West Midlands Salary in excess of £30K

As one of the largest electricity distribution companies in the country Midlands Electricity has an annual turnover in excess of £1 billion.

With the approach of privatisation a new and challenging opportunity has arisen, for the post of Treasurer.

Reporting to the Executive Director (Finance), the Treasurer will be responsible for all aspects of the Treasury Function including cash forecasting, the efficient use of working capital, banking arrangements and the management of short, medium and long term funding; ensuring that funds invested earn maximum returns commensurate with suitable protection from exposure by the utilisation of appropriate instruments. The Treasurer will also be responsible for the Company's insurance arrangements.

The successful candidate will ideally be a qualified Accountant with substantial treasury experience in a major plc or equivalent.

An excellent benefits package is associated with this position including relocation assistance where appropriate.

For more detailed information call our Recruitment Advisor David Phillips (ref: DP416), on 021-633 4913 (daytime) or 021-427 3275 (evenings and weekends). Alternatively, send a full cv to him at M&I Advertising, Centre City Tower, 7 Hill Street, Birmingham B5 4UA. Closing date 28th July 1989.

We are an equal opportunities employer.



POWER FOR THE HEART OF BRITAIN

SWAPS & FIXED INCOME CAREER OPPORTUNITIES

We believe the Swaps market has two distinct areas of opportunity for individuals developing their careers.

AAA Rated Houses: We are speaking to a number of "blue chip" firms currently expanding their teams. Positions exist for: Swaps Traders * Financial Engineers * Swaps Marketing Executives

Newly Established Swaps Divisions: Predominantly international banks who are looking to establish a core Swaps team. Opportunities exist for: Swaps Marketing Executives * Swaps Specialists * Swaps Administrators

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The Rathbone Consultancy

Premier House, 77 Oxford St, London W1R 1BB, England. Tel: 499 1188/287 5704 Fax: 494 0539

Euro Brokers Capital Markets Limited

SCANDINAVIAN AND EUROPEAN LINGUISTS WANTED

The Euro Brokers Interest Rate Swap Group are seeking a replacement broker to cover Scandinavia from London in all aspects of Off Balance Sheet finance. Experience would not necessarily be a key factor but the applicant should be self-motivated and able to work within a strong team environment. Please reply in confidence to:

Miss C.J. Buggins
Managing Director
Euro Brokers Capital Markets Limited
Adelaide House
London Bridge
London EC4R 9EQ

At a career crossroads?

Personal Financial Advisers

Hill Samuel Investment Services is seeking executives aged 25 to 50 and with experience in industry, commerce, sales or the professions, to become Personal Financial Advisers. All necessary training and support will be given to enable you to promote the renowned range products and services. (Office facilities provided). For further details, please contact Edward Ludwigs, Divisional Manager, Hill Samuel Investment Services Limited, Hanover House, 73/74 High Holborn, London WC1V 6LS. Telephone: 01-891 8291.

MICHELANGELO

Money Market Sales £540,000 + Bonus
Major international house require good sales person who has approx. 3-5 years experience covering all instruments. This is a managerial level position.

Derivative Products Trader Salary A.A.E.
We require an individual with at least three years experience within various derivative instruments. Portfolio management, Futures and Options, Asset Swiches, OTC Options, etc. This position is with a major, expanding house and offers good prospects.

Swaps
Our client, a first class house, is looking for a SWAPS specialist in work in both marketing and trading, with at least five years continual experience. Further knowledge of syndications and origination is required. Working within a dynamic environment, this position is at a senior level.

European Sales £235,000-265,000
We have a number of vacancies for people to work in West Germany, Spain and Italy selling fixed income Euro's in major currencies. We are also looking for people with good experience, to be based in London, to sell in Canada, USA, UK, Germany, Switzerland, amongst others. All positions require fluency in the languages and offer good salary packages.

Currency Option Trader £235,000
We require an interbank currency option trader with a minimum of 18 months continual experience. While ambitious, the applicant must be able to work with others in the team and have an outgoing attitude. Other Capital Market Instruments experience will be helpful.

Warrants Trader £235,000 + Bonus
Prestigious overseas securities house are seeking a Japanese Warrants Trader with minimum of 2 years experience. You will be currently working for a market maker and have experience in working a book.

FX Traders £23,000-£45,000
Market leader in FX require good quality FX Traders to work the overnight shifts. You will be trading one or more currencies. You will be paid an odd hour bonus.

Manager UK Corporate Marketing £40,000 + Bonus
A major European bank, based in London, are seeking a top class marketing person with 3-5 years experience in UK Middle Market covering UK property market, M.B.O.'s etc. You will also have experience of capital markets and treasury instruments.



MICHELANGELO RECRUITMENT
The Hop Exchange, 24 Southwark Street, London SE1 1TY
Tel: 01-403 4645, 0206 572352, 0273 682896
Fax: 01-378 0950

INVESTMENT MANAGEMENT

TO £70,000 PLUS SUBSTANTIAL BENEFITS

We are currently advising the Asset Management Arm of an International Investment House, in their search to appoint a Head of Fixed Interest Fund Management.

Recent market conditions have not deterred our client from their objective of increasing already substantial and high performing funds under management. It is envisaged that the successful applicant will have gained a minimum of 10 years experience within this specialist sector, with a thorough understanding of all multi-currency fixed interest instruments, with a particular emphasis on high quality domestic issues, together with a proven performance record to date. Strong management, interpersonal and exceptional marketing skills are a prerequisite for this challenging position.

An attractive remuneration package is offered, reflecting the seniority of the position, together with the opportunity to make a key contribution to a rapidly progressing company.

Please contact Barbara Dabek (daytime) 01-405 4571 or (evenings after 8.30p.m.) 0634-63534. Alternatively forward a comprehensive Curriculum Vitae to the address below:



Applied Management Sciences Limited
17 Bedford Row, London WC1R 4EB
Tel: 01-4054571 Fax: 01-242 1411

MANAGEMENT AND RECRUITMENT CONSULTANTS

CORPORATE FINANCE EXECUTIVE

Aged 24-28

Graduate ACA/Finalist awaiting results; Solicitor; Barrister

Salary to £30,000
Car Mortgage (5% to £60,000)
Bonus
Other banking benefits

Regarded as a leading British institution in its own right, the merchant banking arm of our prestigious client seeks an outstanding individual to complement its highly experienced, corporate finance team.

Your responsibilities will include raising equity finance, conducting company takeovers and defences, effecting flotations, negotiating mergers, acquisitions and disposals and arranging MBOs and asset finance. The department is one of the largest and most active operations in the City, currently employing 100 people. Furthermore, its work is divided into a number of distinct areas embracing a "mainstream" section, small companies unit, mergers and acquisitions team, overseas and marketing support sections.

To qualify for consideration, you should possess a strong academic and professional track record to date, plus the sound communications skills, personal flair and commercial judgement which will enable you to make a mark quickly. Prospects are outstanding and will fulfil the aspirations of the most ambitious.

If you are interested in this first class opportunity, please write enclosing a CV or telephone Andrew Norton, Consultant - Banking and Finance Division, who is advising the client, quoting ref. 5330.



RECRUITMENT SELECTION & ADVERTISING

EXECUTIVE CONNECTIONS

43 Eagle Street
London WC1R 4AP Tel: 01-242 8103

JOIN A TEAM OF LEADING-EDGE FINANCE PROFESSIONALS

The Alcar Group is a fast growing, U.S. based multi-national provider of consulting, data and sophisticated financial software to top corporations and financial service firms. We are looking for several highly qualified professionals to assist us in our growth in the U.K. and Europe.

Responsibilities will include:

- Managing client relationships
- Helping clients implement sophisticated corporate finance techniques to evaluate business unit performance and investment opportunities
- Developing and delivering presentations to senior managers
- Marketing products and services to existing and new clients

Candidates will be highly motivated and creative self-starters who possess a minimum of 2 to 3 years of relevant work experience; strong accounting, finance, communications and interpersonal skills; and highest ethical standards. European language CA or MBA are desirable.

Please send C.V. and salary requirements to:

Arabella Romilly
The Alcar Group Ltd
Ely House, 37 Dover Street
London W1X 3RB

No agency or phone enquiries, please.

GILT SALES

Attractive package City

As a result of recent reorganisation which further underlines their long term plans for the Gilt market, NatWest Capital Markets are now looking to expand their sales team.

You should be an experienced sales professional with 5-10 years' experience in this field with particular emphasis on the longer end of the Gilt market.

In return a competitive package will be offered including company car and a full range of benefits.

To apply please write, in confidence, with full cv to: A. Patrick Howard, Director Gilt, NatWest Capital Markets Limited, Drapers Gardens, 12 Throgmorton Avenue, London EC2P 2ES.

NatWest Capital Markets Limited

Publicity & Public Relations Manager

£25,000 p.a. + car

As Publicity and Public Relations Manager you will take responsibility for the interesting and varied promotional activities in which the newspaper is involved. These include a corporate PR programme, specific activities to promote the FT in the UK, Continental Europe and overseas, and a variety of projects designed to build circulation and advertising revenue.

Ideally aged between 30 and 40, you will have several years' experience in the publicity or public relations field, at a senior level, preferably in media-related areas and will have a thorough understanding of the responsibilities involved in running a promotions department. Proficiency in French or German would be an advantage but is not essential.

In the first instance send your detailed CV to Bob Gunning, Senior Consultant, Austin Knight Selection, 17 St. Helen's Place, London EC3A 6AS. Please quote ref: 1024/JRG/89.

WOLFSON COLLEGE, CAMBRIDGE BURSAR

The college wishes to appoint a Bursar from January 1990. The Bursar has overall responsibility for the investments, finances and management of the College. The appointment could be full-time or part-time, detailed duties and supporting staff being arranged accordingly. The successful candidate will be elected into a Fellowship.

Further particulars may be obtained from the College secretary, Wolfson College, Cambridge CB3 9BB (tel.0223 334900). Applications should be submitted to the President by 25 August 1989.

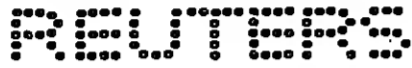
REUTERS REUTERS REUTERS

A SENIOR ROLE IN CREDIT MANAGEMENT

c.£19k + benefits • City

Reuters is the leading world news and information organisation. The company has thousands of business and media subscribers throughout the world. As a result of promotion we are looking for a Deputy Credit Manager to head our team of collection staff. For this key role, we are looking for a person with at least five years experience in a senior credit position, preferably with a large commercial organisation. Excellent communication skills are needed with the confidence and credibility to deal with our clients' senior executives. You must be able to motivate staff and organise effort to consistently meet targets and achieve overriding objectives.

We have a fully computerised sales ledger system, and, during the course of this year will be transferring a number of peripheral tasks to a micro-system. You will be expected to make a significant contribution to the development of credit management procedures and systems, as indeed you will on all operational matters concerning the department. As well as the attractive salary, we are also offering a package of benefits including BUPA cover, six weeks' holiday and an opportunity to participate in the Reuters SAYE Share Option Scheme. If you are ready for such a move, please apply either by telephoning 01-363 7329 (24 hour answering service) for an application form or by sending a full CV to: Monique Gajon, Recruitment Executive, Reuters, 85 Fleet Street, London EC4P 4AJ. Reuters is an equal opportunities employer.



REUTERS REUTERS REUTERS

CORPORATE MARKETING - UK

A European Bank of high standing and committed to successful development of the London operation, requires an experienced Marketing Officer, aged 33, to undertake a combination role of team leader and active marketing. Targeting UK mid-market corporates, the responsibilities require a background demonstrating achievement and potential. A senior level appointment that will be reflected in the salary/benefits package.

Salary: to £40,000 p.a.

For further details of both positions, please contact Frank Hoy either by telephone or in writing.

CREDIT MANAGER - PROPERTY FINANCE

As a result of successful business development, a particularly well regarded European Bank seeks to strengthen a specialist Property Finance credit team. Identified as a key appointment, this role will involve supervision of Credit Officers and responsibility for credit assessment/documentation in a challenging environment. An exceptional opportunity for a capable administrator with proven credit skills to join a thriving team and organisation.

Salary: c£35,000 p.a.

GORDON BROWN & ASSOCIATES LTD. RECRUITMENT CONSULTANTS

5TH FLOOR, 2 LONDON WALL BUILDINGS, LONDON EC2M 5PP TEL: 01-626 7801 FAX: 01-638 2738

Gordon Brown

DG Securities Services Corporation EUROPEAN EQUITY SALES

DG Securities (a wholly owned subsidiary of the Deutsche Genossenschaftsbank) is looking for a Junior Equity Salesperson in their London office to cover continental Europe. Two years minimum experience German market and knowledge of German is looked for. Excellent rewards and long term career prospects.

Contact Nicolas Jeissing on (01) 600 0761 Or write with cv to

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Handwritten signature in Arabic script.

صلى الله عليه وسلم

ARTS

Opera al fresco

VERSAILLES
Open-air opera in tourist beauty-spots is the latest vogue of this now most fashionable and "sexy" of the performing arts.

and Britain are making up a substantial section of the audience. Experience of the first two evenings has not been happy.

The subject-matter of Cherier's opera music and the "effectiveness" of his music, in equal measure bone-headed but reliable, allowed Cherier a slighter livelier impact.

Max Loppert



Alexej Merkushev
Derevo
ICA THEATRE

Leningrad-based Derevo, founded in 1985 by Anton Adasinskiy, are the sort of experimental company that prefer words like people, awareness and existence to actor, acting and theatre.

era, who botch a series of tricks before sauntering up to audience members and inviting us to contribute to the slapstick by administering kicks to their proffered backsides.

ate of balloons spurring the stage with an unnecessary vomit-like liquid and giving form to a female figure, still draped in a dripping caul.

Claire Armitstead

TELEVISION

From macho male to emotional turmoil

In the recent past the world's most successful television exporter, the US, has radically changed the character of its programme exports.



Ken Olin and Mel Harris in "thirtysomething" one of the latest US exports to the UK

turning them over in their hands like a set of false teeth on which they expect to discover a lurking tomato pip.

But with Cagney and Lacey it was not a question of the human relationship enhancing our understanding of the plot; they actually acquired equal importance.

ARTS GUIDE

THEATRE

London
The Merchant of Venice (Phoenix). Dustin Hoffman's Shylock is sympathetic, semiprecious alien in Peter Hall's Venetian Renaissance production.

stily bright production comes from the Lincoln Center in New York. (754 8951, cc 836 2428).

swallowing in the Asquith Set. Simon Callow's elegant director with out smoothing any of the North-

Alceste

The 1776 Paris Alceste of Gluck cannot quite qualify as an opera of the Revolution, though its appearance for a single performance at the Royal Opera House on Sunday, courtesy of the English Bach Festival, was as near to bicentenary celebrations as this house has come.

Artur Pizarro

Portuguese-born but now a pupil of Segura Costa in the US, Pizarro made his London debut on Monday as the winner of the 1987 Vienna da Ponte Piano Competition.

July 14-20

London
M. Butterfly (Suzanne O'Neill). The surprise Tony winner for 1988 is a somewhat pretentious but very funny comedy.

Saleroom

Cashing in on golf
Did the Dutch invent golf? The belated thought arose with the discovery of two 17th century bronze golf heads, with the end of the original shafts inside them, on the wreck of a Dutch East Indiaman, the "Lastadreg" which sank off the Shetlands in 1683.

Antony Thornicroft

Antony Thornicroft
A large Minton pâte-sur-pâte vase, 23 1/2 inches high, made around 1880, by Marc Louis Solon, was bought for £10,450 around double its estimate and a 255 piece Masons Ironstone dinner service of around 1825, fetched the same sum. Two more Solon vases made 29,000 each.

Wednesday July 19 1989

Priorities for the Tories

BRITAIN'S Prime Minister is considering a reshuffle of her Cabinet. Whether a reshuffle will do enough to improve the Government's popularity is open to doubt. It is true that some ministers are good at persuading people to accept the Government's policies, while others are not. Mr Kenneth Baker has done more to change the structure of state education than any of his post-1945 predecessors and has sold his reforms effectively. On the other hand the Environment Secretary, Mr Nicholas Ridley, has failed to convince the public that he is a true friend of the earth. Changing Mr Ridley may initially improve the Government's green image on television, but it is its policies that will tell in the end.

Mrs Thatcher's achievements since she arrived at No 10 Downing Street in 1979 are widely recognised. She tackled public spending, inflation, and trade union power. The privatisation programme has, on balance, been beneficial. Business has been revived.

Yet something has gone wrong, the main thing no doubt being the economy. But when the economy is going wrong, other mistakes become more obvious. Mrs Thatcher's vociferous nationalism, of the kind expressed in the recent European elections, is as out-of-date as the corporatist state politics of the 1970s. The poll-tax is both a mistake and a potential vote-loser. The reform of the National Health Service has been hastily conceived and badly handled, as is true of the privatisations of water and electricity. Though the green paper on legal reform had the merit of tackling lawyers' reticence in reaching the question today is whether the Government is sticking to its guns.

Tackling inflation

Tackling inflation remains the overriding priority. The current policy of the Government is on the right lines, but its effects are likely to be slow in coming. A long period of stagflation is the most likely prospect.

This being so, it becomes still more important that the details of structural reforms be more carefully considered than

in the recent past. For example the role of nuclear power in the privatisation of electricity needs to be changed. Equally, the health service reforms should be introduced more carefully, preferably on a pilot basis.

The current rash of public sector strikes is a consequence of both the increased rate of inflation and the reduced rate of unemployment, but this calls into question the belief that the trade union legislation of earlier years is an adequate formula for the maintenance of industrial peace. The power of unions in monopoly public services needs particularly careful attention. More generally, the linked issues of education, training and the labour market remain the highest priorities. A lot more money is going to have to be spent in these areas, most of it coming from the Government.

Public transport

More money will have to be spent elsewhere, too. Public transport is one example, though here there is an entirely legitimate question concerning the proper balance between public expenditure and charges on the consumer. In general, however, the objective of lowering the share of public expenditure in gross domestic product should not override a more nuanced consideration of the proper funding of essential public services.

The value of a reshuffle, even a restructuring of government departments, is hugely exaggerated. What matters far more is successful policies. First, the Government will need to stick with its present macroeconomic strategy, hoping to bring out inflation, while avoiding too severe a recession; secondly, it will have to abjure its automatic hostility to large public expenditure increases where they are now obviously needed; finally, it needs to focus its efforts on areas where they are essential for the improvement of the economy or such fundamental aspects of life as the environment. If the Government does not succeed in these respects, it may find its lease on power of all too short a date.

Miners for perestroika

IT IS HARD to remember, as pit strikes flare across the Soviet Union, that Communism has tended to appeal to miners. Its egalitarian and fraternal ideals chime with their felt experiences: and the manifest evils of capitalist mining bred in them a desire for greater property and its rights. Further, as readers of Zola's *Germinal* or listeners to Mr Arthur Scargill will have learned, their politics are shot through with a utopianism which could be captured by the transcendent promises of communism.

That tradition has been weakened in the West. Many of the great west European industries, like the Belgian and the French, are closed or near to it. The West German mines are manned very largely by guest workers. The British miners were on the receiving end of Mrs Thatcher's second most successful campaign. In each case, governments of the right or the inside left have drawn a sigh of relief that these hard, awkward, dreamy men have disappeared or been cut to size.

Proletarian kudos

It is in the socialist countries, however, where their class consciousness has been institutionalised and where they have remained a force. They enjoy shorter hours, earlier retirement and better pay than most other groups. When they demand pay rises or managerial changes - as they have in many eastern European countries in recent months - they usually get them. This is not just because of their proletarian kudos: it is much more because of the vast leverage they can exercise on national economic life, producing their nations' power feedstock and an important - sometimes the most important - hard currency export.

Soviet miners have had good cause for complaint. First, as for everyone else in the Soviet Union and especially in the outlying regions of the Russian Federation, supplies have been bad and getting worse. Secondly, they have not been allowed to become "masters of their pits," though they had been promised they would be: the pits formally went over to financial autonomy on January 1 this year, but nothing has changed, nor, with negligible exceptions, have groups of

miners been able to lease pits or sections of them to work for themselves.

A Radio Moscow report two weeks before the strike wave said that in the Donbas pits the problem is that many collectives are demanding to be allowed to go over to leasing but their managers are unable to guarantee essential supplies of wood, metal and spare parts...

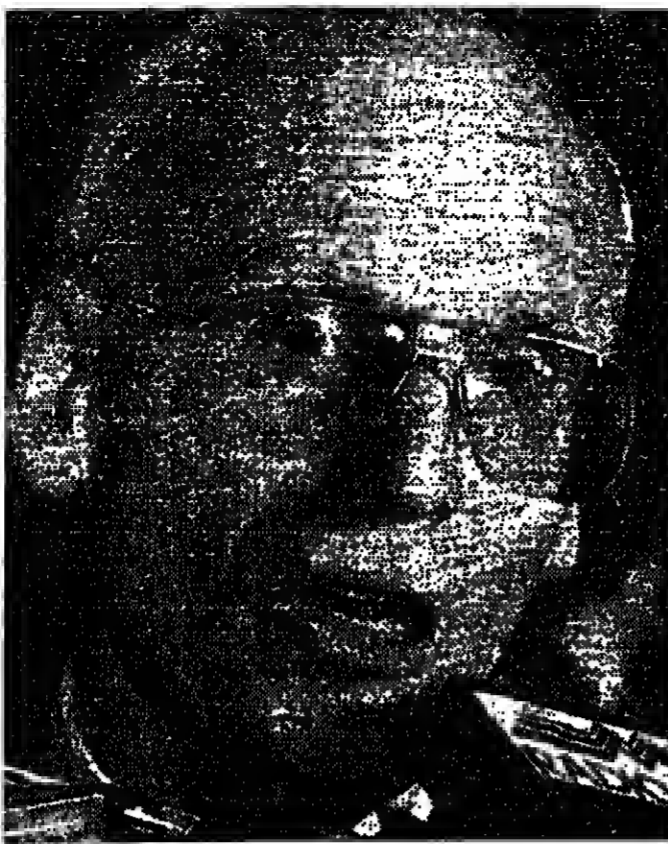
Classic precondition

This, expectation aroused but unmet, is the classic precondition for revolt. It appears a mixed thing: part demand for more devolution of power, an end to Communist Party interference - but also big pay rises and better supplies. It has spread in recent days, from Kuzbass in Siberia to Donbas in the Ukraine: it has been supported both by the central unions and by the Central Council of Trade Unions - presumably so that it may be co-opted into a less threatening perspective of "perestroika from below".

It may, indeed, lend itself to that interpretation. Demands for greater autonomy in the face of sluggish management may not be wholly unwelcome to the reformers in Moscow.

But to turn the demonstrations to good account means, first, ensuring that reforms are made, and that the demands for self-management and a devolution of financial control are met. More importantly, it means telling the miners of the Soviet Union, and beyond them, of eastern Europe, that the managerial and political reforms they want are incompatible with their economic demands - or rather, it is only through successfully decentralised and self-managed pits that a better living standard for themselves and their fellow countrymen can be secured. Left-wing Welsh miners proposed something like this before the First World War: Soviet miners could do worse than get a sanitised copy of *The Miners' Next Step*.

Change of any kind will not come through allowing the miners to retain their status as communist society's most fearful pressure group. Sooner or later, Mr Gorbachev and his fellow reformers will have to take them on - by setting them free.



● Nestor Rapanelli

Argentina's new Peronist government, headed by President Carlos Menem, has taken the stage with the promise of a repeat performance of a melodrama: "Reform of the Bankrupt State, or The Promise Betrayed." The play has been in the repertoire of Argentine governments of all shades from 1945; since then Argentina has seen 13 emergency economic plans. Despite the sudden death of Mr Miguel Roig, the Economy Minister, on July 14, the curtain has risen on the 14th performance. This time it may just reach the final act.

Mr Nestor Rapanelli, who has replaced Mr Roig, has promised to continue where Mr Roig abruptly left off, by thoroughly reconstructing the country's economy, starting with the most immediate danger, hyperinflation now running at a monthly 200 per cent.

While the new government has taken the unexpected death of Mr Roig in its stride, the hurdles ahead are numerous. Even if its economic policies prove sound, the trades unions and employers have yet to find common cause in the national good. And President Menem is always likely to be sidetracked by the military, unless he can find some way of meeting their factional demands.

A 90-day price-control agreement signed between government and 300 so-called "price-forming" companies is now in place. The government's side of the bargain is an undertaking not to raise public sector tariffs further, and to do its best to control wages during the same period.

Argentines are sceptical about this latest price-freeze. The same market-dominating companies now ready to negotiate with a Peronist government ignored a price freeze imposed by President Raul Alfonsín's Radical Party administration in May this year, and more than doubled their prices on the eve of this one. Hard-pressed consumers are thus determined to ensure their wages go up by three digits this month.

Mr Rapanelli is out of the same stable as Mr Roig: he held a vice-presidential post with the multi-national grain corporation Bunge and Born. In that sense the death of Mr Roig has served to reaffirm the government's commitment to the essentials of his stabilisation programme. On July 9, Mr Roig increased all public sector prices by between 250 and 600 per cent. This affected the prices

of petrol, gas, electricity, and transport, among others.

But that move is only the first necessary step, caused by the virtually complete collapse of the state sector; in May government expenditures exceeded revenues by more than 70 per cent. Mr Rapanelli must not only consolidate that effort, he must also steel himself for the complaints that will greet the longer-term component of President Menem's programme, privatisation.

Mr Roberto Dromi, Minister of Public Works, has the daunting task of masterminding the sale of all state-owned enterprises, which currently lose \$3.2bn annually - over \$8.5m a day. The losses, underwritten by the treasury, have convinced President Menem's government that the only option is to sell as many companies as quickly as possible.

While Mr Dromi's plan - one of the first to be announced - will no doubt gain congressional approval it will meet dogged opposition from both business and trades unions. The government has said that privatisation of telecommunications, shipping, gas and electricity - some of the largest loss-makers - will not mean unemployment. The 2m people employed in the public sector will do their best to make sure that is true. But a major part of the public sector's problem is over-manning.

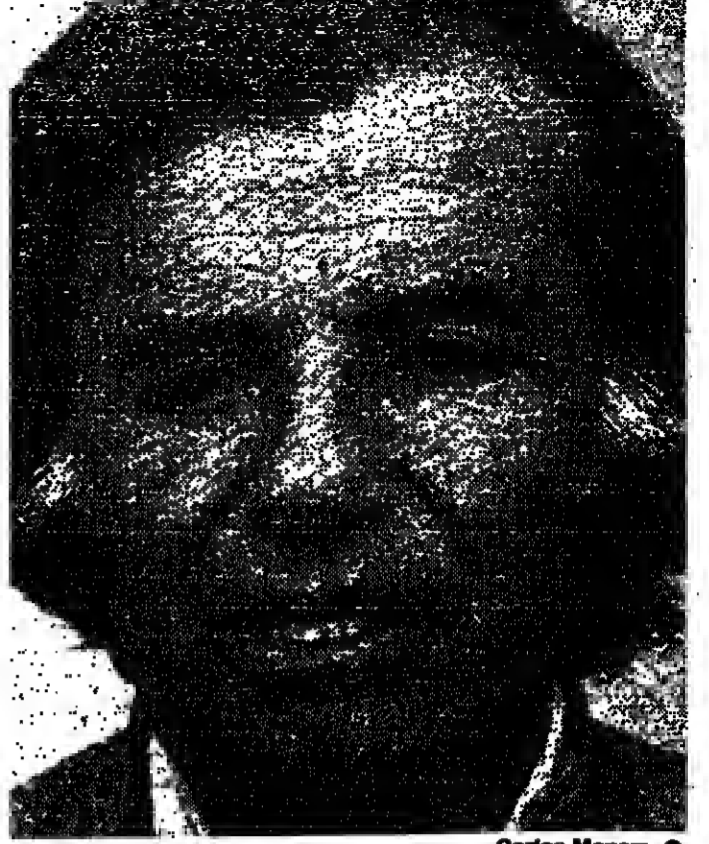
Privatisation is not unalloyed good news for business. Many of the large "price-forming" companies depend almost entirely on government contracts, which last year cost the state an unnecessary \$2bn in over-pricing for goods and services, according to Mr Rodolfo Toranzo, a former Public Works Minister.

Like two boxers slugging it out, unions and business in Argentina have a healthy distaste for one another but hate interference from the referee even more. President Menem has to force both to obey rules imposed by a state now urgently interested in efficiency.

At the same time Argentina has built up over \$3bn in arrears on its \$60bn foreign debt, and there is no immediate prospect of talks with its creditors to restructure these borrowings. Industry is suffering a sharp recession, with unemployment and lay-offs now commonplace. According to government figures more than 3m people are now living below the poverty line in the Buenos Aires conurbation - 44 per cent of its population.

Gary Mead reports on President Menem's attempts to dig Argentina out of bankruptcy

Struggling to keep every ball in the air



● Carlos Menem

Ironically Mr Menem is introducing a stabilisation scheme promoted by his only real rival for the presidency, Mr Eduardo Angeloz of the Radical Party. Mr Menem was victorious because he managed to persuade the electorate that the Angeloz approach was exaggeratedly severe. But since taking office the government has come to believe that it has weeks rather than months in which to act to prevent a serious deterioration of public order.

A further promise from President Menem's team is a revision of the country's tax laws. Independent estimates suggest that only 30,000 individuals pay income tax out of a population of 32 million - partly because of the belief that paying taxes means subsidising government inefficiency

Like two boxers slugging it out, unions and business have a healthy distaste for one another but hate interference by the referee even more

and corruption. The tax reforms promise a universal 10 per cent value added tax, and tighter, simpler rules forcing income tax payments of 20 per cent.

The apparent contradiction at the heart of President Menem's privatisation programme - how can a Peronist demolish what Gen Peron himself built up? - is easily understood once it is accepted that Peronism is merely pragmatism elevated to the status of a creed. Once it suited this populist movement to have all important industry in state hands. Now it does not.

If there are doubts about President Menem's plans they focus on the individual himself. Is he being pragmatic or merely opportunist? Will he eventually cave in to the forces of entrenched corruption which have traditionally opposed opening up Argentina's economy to foreign and domestic - competition? And if he is going to eliminate *amiguismo*, the Latin American version of the old-boy network, why do so many of his team owe their places to being *amigos* of the President or his friends?

Under the surface of the new Peronist pragmatism, which local pundits are already dubbing "Menemstroika",

is an attempt to close a number of painful chapters in recent Argentine history.

In his first week in office President Menem pronounced himself ready to end the formal state of hostilities with Britain, which has endured since the invasion of the Falkland Islands in April 1982. Military chiefs of staff were replaced, prior to the expected general amnesty for those who were involved in excesses during the 1970s "dirty war" against left-wing guerrillas. Two days after saying that he was prepared to end formal hostilities with Britain, however, President Menem played the issue down, saying that "no formal proposals" had been made and that his statement was an expression of his wishes.

Perhaps the most difficult problem facing the new government concerns the likely attitude of those members of the army associated with Col Mohamed Ali Seineldin, who staged a four-day rebellion at the beginning of December 1988. Col Seineldin is a veteran of the Falklands War, and regards himself as a staunch Argentine nationalist. He opposes the least indication of what his supporters term the "social-democratic" inclinations of Radical Party politicians and the "Renewal" wing of the Peronist party. "Renewal" Peronists, who opposed Mr Menem's presidential candidacy, have been kept out of the cabinet, and in the past, the Colonel and the President are known to have had contacts.

Currently under detention for his rebellion, Col Seineldin has become the *de facto* head of what is now openly referred to as the "National Army". His rebellion - like two others led by Lt Col Aldo Rico - was staged to demand an amnesty for those military personnel accused of human rights abuses during the "dirty war", when some 3,000 people disappeared; a similar pardon for almost 450 officers cashed for their part in the three insurrections; and what the rebels describe as a "reinvigoration" of the army's role in society. This last demand is code language for a pat on the back for having fought the Falklands War, and for having (as the rebels see it) destroyed a communist threat during the "dirty war".

But beneath these demands lurks a nationalism now increasingly out of tune with President Menem's pragmatic openness towards befriending any and all other nations. Not the least of Col Seineldin's antagonisms is

towards the US, which he regards as a meddling nuisance in Argentine affairs.

President Menem might eventually succeed in his privatisation plans, restore confidence to the economy and halt inflation. But all that will be lost if he is unable to reunite the army. "Menem has two choices. Either he accepts Seineldin in the army, or he pushes him out. But if he pushes him out the army will not respond to Menem when and if he needs it," one of Col Seineldin's civilian supporters said last week.

An almost equally difficult problem is the task of controlling some of Latin America's most powerful, well-organised and stubborn trades unions. Of these, the metalworkers, the Union Obrera Metalurgica (UOM) is the force likely to give most trouble. Last week its leadership demanded a 200 per cent wage increase for July. The UOM's 330,000 membership is a law unto itself, pledging allegiance to Peronism and President Menem but determined to resist any erosion of living standards. Throughout this year's hyperinflation its salary levels have kept abreast of cost of living increases. The UOM is just the hardest tip of the iceberg. President Menem has recently promised no redundancies in the state sector despite the privatisation programme - which, he calculates needs six months' before it begins to bite - and the over-manning.

The threat from unions is that they will refuse to take further punishment. The threat from Col Seineldin is that he may use his influence within the army to dissuade it from acting against social disorder, should it break out again. Looting and riots at the end of May left 14 dead and 800 wounded.

President Menem has moved fast in his first two weeks because he has little choice. Without swift cuts in state spending, inflation will continue to surge. While prices double each week, as is currently the case, trades unions will fight to protect their members. That in turn leads the private sector to doubt the wisdom of a price freeze - another step in the vicious circle. If rioting breaks out again President Menem might need army backing. For that he needs at least the silent support of Col Seineldin. With so many balls in the air at once, it will be surprising if one does not slip.

Bavarian charmer

■ Much impressed by Theo Waigel, the new West German Finance Minister, in London this week.

Waigel wears two hats: one as head of the ministry, the other as the leader of the Christian Social Union (CSU) in Bavaria as the successor to the late Franz Josef Strauss. In London he was wearing mainly the latter.

Strauss is a hard act to follow: multilingual, known around the world on visiting tours with Deng Xiaoping and almost anyone he wanted to see. Until recently Waigel was not much heard of outside Bavaria.

That did not prevent access to Margaret Thatcher, however, partly on the basis that the CSU and the Tories are fellow conservative parties with a great deal in common. At least, they ought to have a great deal in common. Waigel thinks they are alike in being green, conservative and at the same time believing in economic growth and nuclear power. That is the Bavarian model.

Where Thatcher trails behind, he thinks, is in lacking the European dimension. He claims to have told her quite strongly - and here his Finance Minister's hat must have come into it - that Britain must become a full member of the European Monetary System. According to German sources, her reply was along the lines: "I know I'm right, but I'll do it in the end."

Waigel also says that it is not only the German left that is interested in movement in Central Europe. British attempts to maintain the status quo indefinitely are not going down well in the federal republic: a message that was put recently in London by Lothar Spith, the Prime Minister of Baden-Württemberg and another candidate for the succession to Chancellor Kohl.

OBSERVER

Waigel is 50. He is still learning the Finance Minister's job, much as Helmut Schmidt had to learn it when he became Finance Minister some years ago. He might make his first international mark at the IMF meeting in Washington in September: his aides say that he will be the dominant Finance Minister in Europe by the end of the year.

Under Strauss, Waigel does not challenge Kohl directly: he is seeking to be a partner in the Bonn coalition with the Christian and Free Democrats rather than a rival, but his CSU party is also putting forward policies which are slightly right of centre.

The theory is that while Strauss was around, the non-extreme German right always had him to turn to. When he died, some German conservatives turned to the fringe right-wing parties instead. The right-wing parties instead. The aim of the CSU under Waigel is to win them back.

If that happens, Chancellor Kohl's coalition will win the federal elections next year, despite present opinion polls. The economic circumstances, says Waigel, could hardly be more favourable. It is also the case that, if Kohl does win again, Waigel's own prospects will improve still further.

He has all the Bavarian charm - a mixture of peasant and intellectual - including a willingness to tell jokes in English even though he does not speak the language all that well. Would that some British ministers would let themselves loose in broken French or German, smoke a large pipe and wear a funny hat! That's one of the reasons we need a reshuffle.



"A few more British Rail sandwiches ought to wear them down."

only 5 per cent of the cola market against 93.5 per cent for Coca-Cola. The company is still taking the long view, however. D. Wayne Calloway, the PepsiCo chairman and veteran of cola wars around the world, has just visited Tokyo and declared that the strategy is one of guerrilla warfare: chipping away at Coke's share of the market by going from store to store, vending machine to vending machine, and Pepsi will make it in the end.

Back to Smith

■ For a man who deals in words, Tim Waterstone seemed a touch limited in his choice yesterday when describing his feelings about agreeing to sell the chain of book shops which bears his name to high street giant, W. H. Smith. "Thrilled" was the one that came out most often.

One might imagine that the deal was the ultimate "I told you so." Waterstone was sacked by Smith in 1981 when

he was chairman of the north American business which had "lost a lot of money," he says. The following year, with his last £5,000 and a £10,000 loan from his father-in-law, he opened the first Waterstone's book shop. Much hard work later the chain had grown to 30 shops with ambitions to reach 100 as soon as possible.

However, the costs of rapid expansion have meant that Waterstone's has been losing money. This time, though, Waterstone, now 50, will not get the sack. Rather he is to head a new company formed by merging Waterstone's with Smith's Sherratt & Hughes chain. And it was Smith's idea to change its shops names to Waterstone's because it is the better brand.

Waterstone himself bought most of his shares at 4p and will get a minimum of 480p for them in 1992, and more if the group's profits rise fast. His 25 per cent stake will be worth nearly £10m at the minimum price; he will sell a few shares now, at a price of 350p, to give each of his six children a "small" present.

Heavy policing

■ London strike story of the day. A colleague was coming to work from Putney, cycling along the banks of the Thames. He was stopped by not one, but two policemen who told him to dismount on the grounds that it was a public footpath. He was let off with a caution.

They are also telling Hungarian-style jokes. What happened to the man who jumped on the Northern Line? He died of old age.

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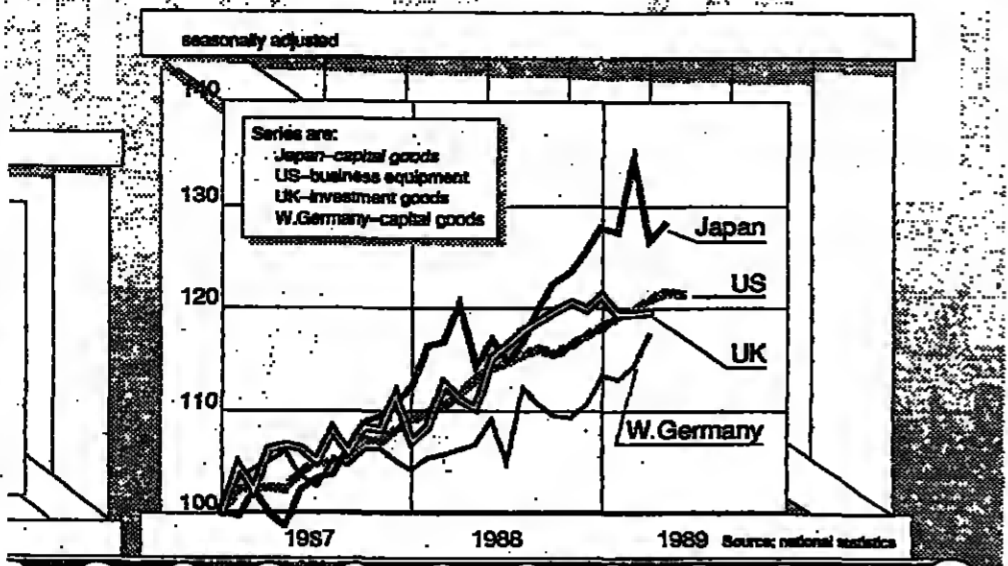
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Scrapping for sales in what has been one of the most brutally competitive markets has long characterised business for Europe's forklift truck makers.

Nick Garnett reports on a prosperous year for the world's machinery and component makers

Capital equipment output



An embarrassment of orders

Nor is it just European equipment suppliers who are enjoying what has been an almost worldwide investment boom in manufacturing kit.

larily marked in Japan, West Germany and smaller economies such as the UK.

German suppliers are quoting an average of nine months for delivery of their machines

sectors which buy equipment. Chemicals, steel and the volume car makers, for example, are enjoying buoyant trading conditions and fat profits.

two markets, the US and the UK, there are tentative signs that demand for some production equipment is starting to flag.

In some segments, increased purchases have been restricted to certain types of machines. For example, in textile machinery, there was a big jump in sales of spinning equipment last year (mainly to Asia) with sales of some types, such as short and long staple spindles, up by at least 50 per cent.

The food processors need to supply ever wider varieties

Sales of electric forklifts in the four main European economies, West Germany, France, Italy and the UK, rose steadily from a low point in the early 1980s to 54,500 units in 1988.

In machine tools worldwide, output rose last year by 15 per cent to \$36bn, according to American Machinist magazine.

Orders from West German industry for metal cutting and forming machines this year is up so far about 90 per cent on last year.

In a few supply segments, a number of separate factors have conspired to promote equipment sales. In food making machinery, the rapid growth in the market for ready-made meals from supermarkets, the switch within dairy products to more value-added items like yoghurts and fancy cheeses and the need among food processors to supply ever wider varieties of foodstuffs have helped drive up sales.

In the European chemicals industry, investment rose a tenth in 1987, measured in Ecu, and then increased by 15 per cent last year, according to figures from national chemical federations.

In the middle of this investment growth, some equipment suppliers have already begun to ponder how long these heated trading conditions will continue.

Overall though, machinery makers, used to selling in price-distressed and price-sensitive sectors, are enjoying for a change the luxury of equipment-hungry customers beating a path to their door.

Funding of research

How planning threatens British science

By David Sowers

A recent report from the Advisory Board of the Research Councils is only the latest of a series of reports from the Government's scientific advisers which set out an essentially Marxist approach to the organisation of science in Britain.

Academic engineers cannot function effectively without contacts with industry, and one output of their research will be inventions which industry can use.

material gain for the promotion of knowledge as the ultimate purpose of academic research. It would thus seek to extend to all the sciences an objective that can properly be applied to engineering, and to extend the objectives of industrial research to academic investigation.

This urge for centralised planning among the industrialists and scientists who man the Government's advisory committees does not mean that the Government has chosen closest Marxists to advise it but that they are intellectually confused.

Scientists who are concerned with the financing of research may well feel under pressure to demonstrate that science as well as engineering can produce useful results, and so deserves more support from a government that has expressed a desire to see more exploitable research done in the UK.

The proper division of labour between universities and industry leaves the academics primarily concerned with the choices of students; but the education of the young, while industry concentrates on the production of goods.

They do not seem to understand that the efficiency of a market economy results from the existence of a multiplicity of decision-takers, some of whom are likely to be right but many of whom will be wrong.

Such advice would, in practice, mean that academic scientists were directed away from pure research to applied research. One result would certainly be a reduction in the output of research measured in knowledge, and consequently a reduction in the standards to which young scientists were educated.

If a government wished to improve the productivity of academic research, it would therefore seek to increase the number of sources of finance for research, not to reduce them. It may be no coincidence that medical research is one of the most flourishing branches of science in Britain.

These members also appear to suffer from the delusion that academic and therefore pure scientific research can be managed like industrial development; so they imagine that the five-year plan can contain targets against which annual progress can be monitored.

This misconception may arise from a failure to recognise the difference between academic science and engineering.

Such a policy towards science would be the ultimate in "short-termism" to use that fashionable term of abuse, because it would substitute

LETTERS

Getting around London

From Mr Ian McIntyre. Sir, The problem with Mr Peter Bottomley's statement (Letters, July 15-16) that "the Government will only develop options which improve conditions for those who live and work in London," is: how will that judgment be made?

Cross - a big increase in journeys by road is predicted. Those who protest about the road options do so because they believe the Department of Transport is preoccupied by more roads as a "solution" to transport problems, and that if "options" become "proposals" it will be too late.

The East London Assessment Study identifies problems narrowly - even specifying seven particular points on the road systems in the area. It states that options will "alleviate conditions" at as many of these locations as possible.

Eight out of the 12 options in the East London assessment study involve destruction of the Parkland Walk, an area of metropolitan open land in London boroughs short of green space.

Humour disputed

From Mr J.W. Budge. Sir, Your report (Weekend FT July 15-16) about the rail dispute includes: "But the dispute had its funny side." For some 33,000 commuters on the Southend to London Fenchurch Street railway line each morning and evening last week (apart from Wednesday, "strike day"), the normal train service was reduced by about 70 per cent because of BR management's decision to run a drastically reduced service.

In these circumstances I hope you will appreciate that there is a serious difference between West German and Britain in that industrial relations in the one are regarded jointly as a means of achieving growth and prosperity for all concerned, while in the UK, growth and prosperity are not often on the agenda.

Kiss and make up

From Miss Wendy Beaver. Sir, Might I suggest how British Rail could slightly alleviate strike inconvenience? To claim a refund on tickets bought in advance (which cannot be used on strike days) you have to complete a detailed form. To get it - BR will give no refund without it - you

must join the ticket queue. This form should be available outside the ticket booth. At best, present policy is inept; at worst it deliberately deters commuters from claiming rightful compensation.

Private price

From Mr J.B. Freeman. Sir, Mr Samuel Brittan's Lombard column (July 17) advocates privatisation of railways because "the hidden agenda of privatisation is to reduce union power."

British Rail management. It is nothing to do with privatisation nor with middle class greed. No experienced industrial relations manager worth his salt (which Mr Toole appears not to be) would dream of conducting important negotiations like these in the way that the BR management has done.

More apathy than sympathy

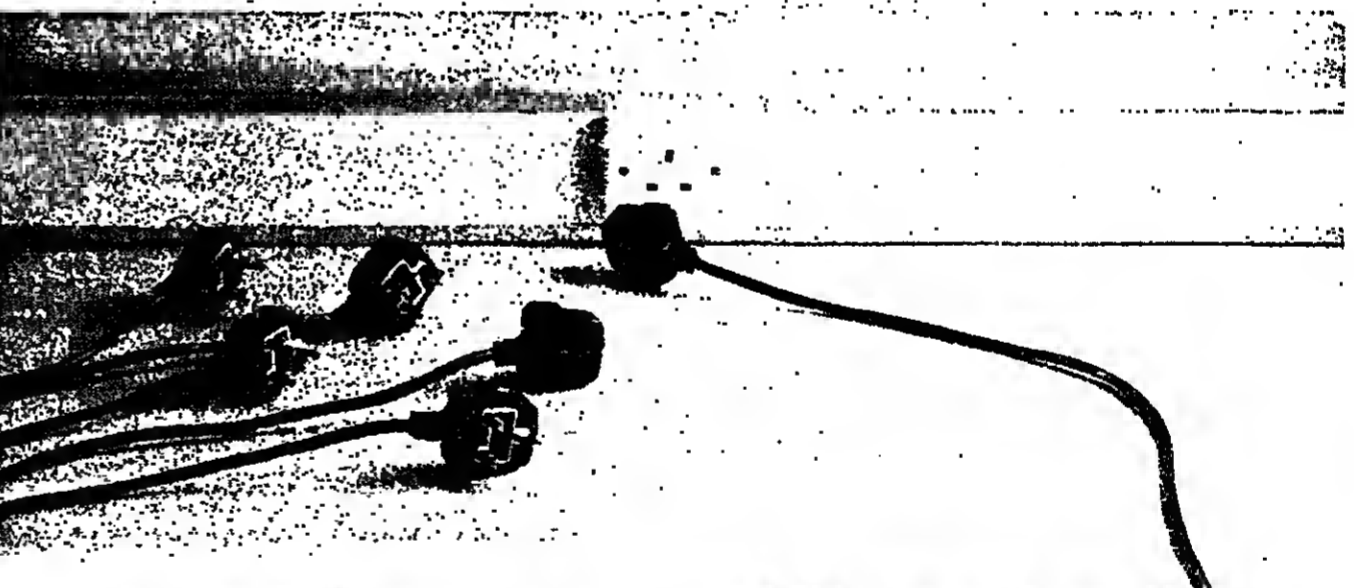
From Mr Dennis Howson. Sir, Your front page (July 18), reporting the National Union of Railwaymen rejection of the British Rail pay offer, states yet again that the travelling public "has up to now shown considerable sympathy for the rail workers."

NUR attitude - especially as arrogantly portrayed by the theatrical Jimmy Knapp. Some commuters have sympathy with railwaymen having to deal with such an apparently inept BR, but let us be clear that the travelling public only want to see less of Mr Knapp and more of the trains.

Determined to negotiate

From Mr Andrew Sargent. Sir, West German organisations achieve joint commitments from employee representatives and management towards business by well established system which ensures that the interests of employers and employees are discussed at works councils and on "supervisory" boards.

without equivalent accountability. Short term remedies for long term problems. What is needed is a new approach to workplace employee relations, based on these elements: Both sides need to and can agree. Enlightened self-interest is positive. Employees are primarily responsible human beings. Human resource management now requires a much more sophisticated range of skills. The cost of maintaining an intransigent stance towards new values will undermine competitiveness. The trade union movement is not going to disappear. Capital and free enterprise will not be eliminated. If we are to continue in opposition to the employment laws of continental Europe (which will inevitably force change) we must urgently re-examine attitudes which at the moment mitigate against positive belief in the possibility of, and the need for, joint commitment towards business success.



A shock to the established order.

Though the microcomputer is the most recent innovation to emerge from the computer industry, it is primarily manufactured by the computer giants, with their roots in American or Far Eastern industry, who have traditionally dominated the market.

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FINANCIAL TIMES

Wednesday July 19 1989

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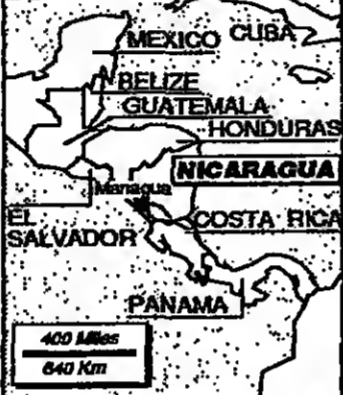
Sandinista revolution is intact... at a price

IN A country where you can die at any time from bites of vampire bats, rabid dogs or tiny mosquitoes, it is an achievement to dream about a revolution - let alone make one.



Victorious Sandinista forces and Managua citizens celebrate in front of the Nicaraguan National Palace 10 years ago, as the National Guard surrendered, so ending the seven-week civil war.

most of the Soviet Union, underwrote the economy by some \$200 per capita per annum. That adds up to a disaster.



ers have died defending their land.

general elections. There is a functioning mixed economy in which private ownership of the means of production still predominates over state-ownership.

Sandinista idealism to bureaucratic corruption, diseases endemic to most governments after 10 years in power.

EC company law plan could be blocked

By William Dawkins in Brussels

CONTROVERSIAL plans for a European company statute yesterday met a potential blocking minority of European Community governments.

qualified majority vote. Britain would then find it harder to block the scheme, given that the blocking minority could easily fall apart.

However, in other ways, Bonn welcomes the scheme as useful protection against competition from low-wage companies.

Jaruzelski says he will stand for President

By John Lloyd in London and Christopher Bobinski in Warsaw

AN END to the immediate Polish political crisis appeared in sight yesterday, as General Wojciech Jaruzelski, the Communist Party leader, announced he would, after all, stand today for election as President.

Soviet miners stay on strike despite offers

or absorbed as another government subsidy.

Tables turn in UK rail dispute

By Michael Cassell and Fiona Thompson in London

THE UK Government and British Rail yesterday rounded on the National Union of Railwaymen for narrowly voting to go ahead with its fifth 24-hour strike after rejecting an improved 8.8 per cent pay offer.

Public criticism of BR's handling of the dispute, the NUR rejection of the offer has already lost it public sympathy.

US trade deficit widens, dollar falls

Continued from Page 1

The surge in capital goods reflects large expansion plans in foreign-owned (mainly Japanese) plants in the US, which will displace imports when they come on stream.

Table with 2 columns: City, Temp. (C/F)

Illegal ivory destroyed in Kenya

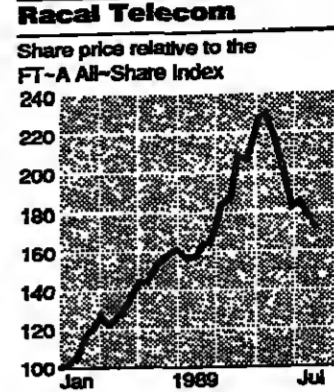
Continued from Page 1

cover the event and public relations consultants were flown from Washington to mastermind the operation.

Wildlife experts have claimed that the inability to combat poaching during the last decade has stemmed largely from a lack of political will and widespread corruption among officials in the government and military.

GEC makes new connections

The cynical reaction to the link between GEC and Plessey on mobile phones is that Plessey shareholders should watch out: the more cosy the two companies become, the less chance of an aggressive take-over bid.



Rue - underlines the stock market's dilemma in valuing what is left of the company. De La Rue has got a surprisingly good price for Crossfield, whose erratic profit record and ability to consume cash, is the cause of the group's current problems.

BAT carve-up, the oddest is surely GEC. It seems most unlikely that Lord Weinstock is interested in buying any of BAT's businesses, or indeed doing anything other than taking a punt with his company's share.

De La Rue

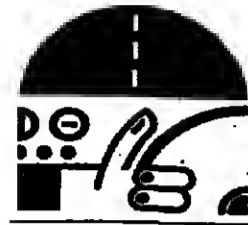
The token rise in the De La Rue share price yesterday on the news that Du Pont and Fuji Photo have agreed to buy Crossfield - roughly half of De La Rue.

BAT

Among those who have booked a seat for the great

WE'RE RESPONSIVE. TOKAI BANK advertisement with logo and contact information.

FINANCIAL TIMES SURVEY



A long-predicted shake-up in the domestic and international courier and express industry

is taking place as big operators prepare for the expanding European market. Costs are rising and more mergers and acquisitions lie ahead. **Kevin Brown reports.**

A bitter fight for higher volumes

AFTER several years of rapid growth, the European express and courier industry is in a state of flux as the principal players reposition themselves for the next stage of the game. According to industry estimates, the European market is still growing at between 20 and 40 per cent a year, slightly slower than a couple of years ago, and is now worth between £1bn and £1.5bn.

But the cost of staying in the market is rising, and there has been strong pressure on margins as companies fight for the ever higher volumes needed to cover their high fixed costs.

The result has been a wave of mergers and acquisitions as some of the larger companies try to buy volume by snapping up the smaller fry.

Other companies have diversified into value added activities such as contract distribution in search of the profits and cash flow to keep them in the parcels business.

All this is happening against the background of the increasing Europeanisation of the market in advance of the completion of the European Community single market in 1992.

The cost of providing an integrated service throughout Europe is high, partly because of the extensive physical infra-

structure required, but also because of the information technology needed to provide a high quality service.

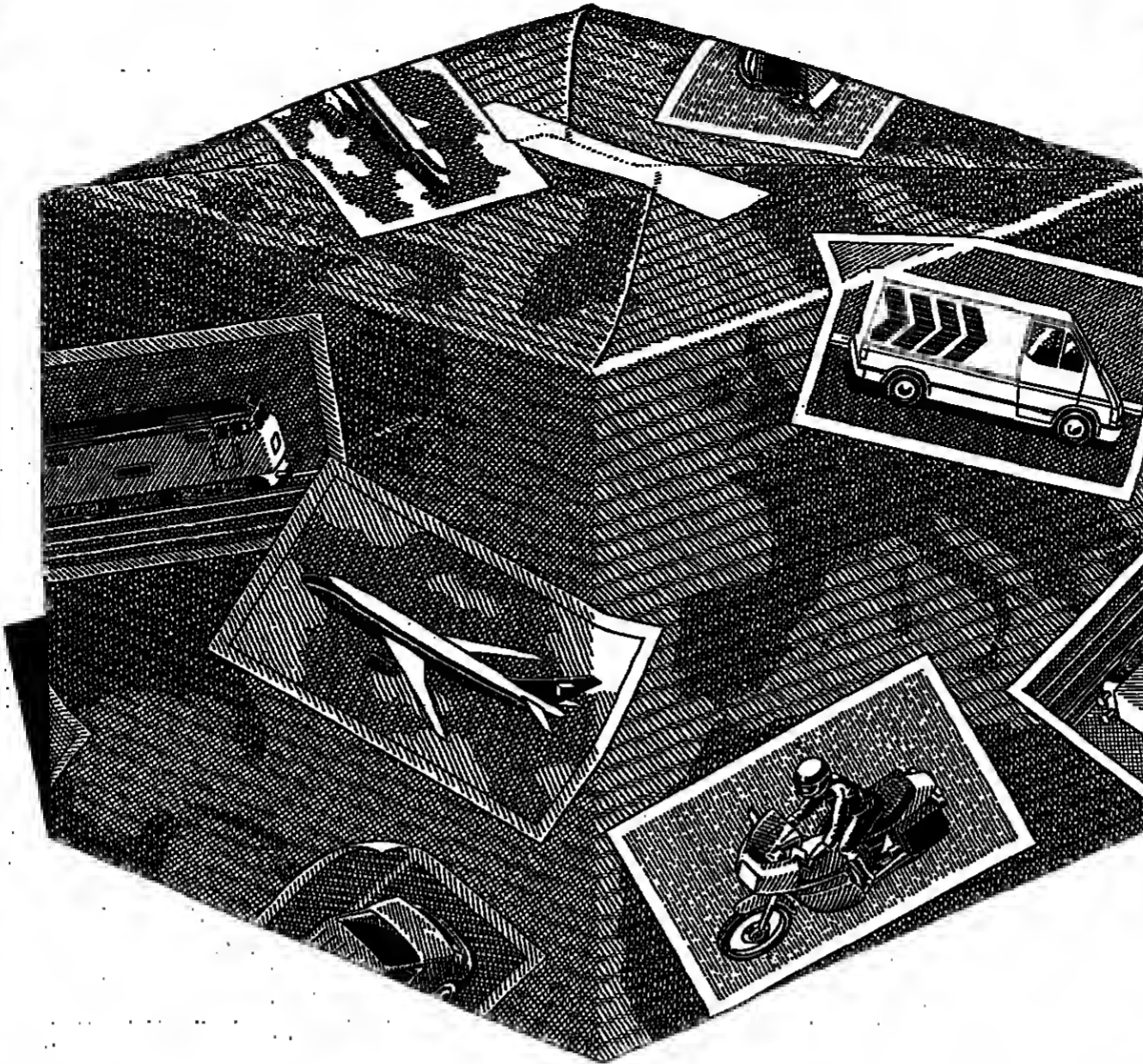
Given all these factors, most industry observers expect a major shake-out to gather pace over the next couple of years as some of the small and medium companies find their volume growth too small to finance the necessary investment.

Most agree that there will be room for regional operators, perhaps covering a single European Community country, and for niche operators, such as those specialising in the two and three-day markets.

However, the market will almost certainly continue to be dominated by the big four companies - United Parcel Service (UPS), DHL, Federal Express and TNT - which have the financial, technical and sales back-up of worldwide operations.

The big four have indicated that they are determined to remain as major players in the European market, but they appear to be adopting radically different strategies. In recent months, the most active has been UPS, the world's biggest carrier of small packages, which was also the last of the big four to move

into Europe. After watching the growth of the European market from a distance for several years, the conservative UPS management finally took the plunge late last year when it bought Atlasair in the UK, followed by IML Air Services, a major UK-based courier with a worldwide network.



Courier and Express Services

and gold corporate colours. In addition, UPS is investing heavily in its European hub at Cologne.

"They have obviously decided to take Europe seriously, and they are throwing a lot of money at it. These acquisitions will not have been cheap," says Mr Martin White, a consultant who follows the industry for accountants Coopers and Lybrand.

DHL's strategy has been harder to fathom, but the company has ended the arms

length relationship which formerly existed with Elan International, its parcels subsidiary, and merged the company back into the group's mainstream operations.

TNT also acquired Air de Cologne from Scandinavian Airline Systems and XP Express from KLM Royal Dutch Airlines.

However, in both cases the driving force was the desire of the airlines to get out of the expensive parcels business to concentrate on their core activities.

Mr Alan Watson, managing director of TNT Express Europe, is one of a number of leading figures in the industry who now believe that savings in inventory costs, through rationalisation of manufactur-

ing and stock holding, will be far more important. This means there will be increased demand for the specialised skills of the distribution companies who can maintain supplies to a manufacturer or retailer's Europe-wide markets from a reduced number of distribution points.

However, users of freight services are likely to reduce the number of distribution companies they use, and will probably demand faster and more sophisticated services to stay ahead of their competitors.

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Forwarders light back; Role of scheduled airlines	6		
New Markets; Second-tier operators; Local couriers	7		

Illustration: Robin MacFarlan
Editorial production: Roy Terry

The central thrust of TNT's strategy has remained the same for several years - providing a full range of high quality services at competitive prices to build volume and put pressure on competitors.

Federal Express, the last of the big four, seems to have decided to follow a twin track strategy which both keeps it in the parcels market and expands its existing distribution interests.

FedEx has made a couple of acquisitions in the mainstream parcels market, notably Home Delivery Services, from Littlewoods, which will help put FedEx second behind Royal Mail as a carrier of small packages in the UK.

FedEx has also acquired the US cargo airline Flying Tigers, and plans to use some of that airline's capacity to provide a service between Europe and the Far East.

However, it is no secret that FedEx has experienced difficulty in generating sufficient volume in its European parcels business, and has suffered tight margins.

FedEx is fortunate, however, in having a second string to its bow in the form of the Systemline contract distribution business inherited from the LEX Group, the UK acquisition which brought the group to Europe in a major way several years ago.

FedEx is putting a substantial effort into building up Systemline, especially by extending to the division its exceptionally good information handling skills.

Meanwhile, it is becoming clear that the deregulation of the EC transport market as a result of the completion of the single market will probably lead to a significant increase in demand for distribution skills, especially at the express end of the market.

This is in contrast to the forecasts in the Cecchini report on economic integration, which suggested that the major boost to industry would come through reduced frontier delays.

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For the express companies, this means providing an integrated air/road system, concentrating on same day and next day deliveries, especially for high value, fast moving commodities.

If express companies are to keep up in this tough market place they will have to invest large sums in information technology, says Mr Watson.

Mr Reg Bailey, a partner in the accountancy firm Peat Marwick MacIntock who specialises in the courier and express industries, says the key to the developing European market will be quality of service.

"People who use express services do it because they need to have the goods at the destination quickly, but they also need to be assured that the goods will arrive when they are supposed to."

"If companies can guarantee not only to deliver on time, but to track the goods throughout their journey, right across Europe, they will have a major advantage over their competitors."

"But to do that they will have to make a major investment in information technology and electronic data interchange, which will become increasingly important as common technical standards emerge," says Mr Bailey.

The implications of all this are serious for smaller companies which are already finding it hard to achieve sufficiently high volumes to cover the costs of existing equipment.

"The importance of volume is so enormous that it is difficult to see any medium-sized players surviving as pan-Euro-

rationalisation of manufactur-

ing and stock holding, will be far more important. This means there will be increased demand for the specialised skills of the distribution companies who can maintain supplies to a manufacturer or retailer's Europe-wide markets from a reduced number of distribution points.

Continued on Page 9

INTERNATIONAL REPLY SERVICE · INTERNATIONAL MAIL

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COURIER and EXPRESS SERVICES 2

Anne Hunter reports on Royal Mail Parcels 18 months after achieving autonomy

Separateness is strength at home and abroad

EIGHTEEN months ago, major restructuring within the Post Office resulted in the formation of four distinct operating divisions - the National Girobank, PO Counters, Royal Mail Letters and Royal Mail Parcels. Under its new managing director, Mr Nick Nelson, formerly of DHL, RMP is now an autonomous division controlled by its own management board.

In the face of persistent challenges from the likes of TNT, RMP continues to dominate the UK express market by a wide margin while its international strength in tandem with newly-formed working agreements with other like-minded postal authorities, is limitless. In the year 1987/88 RMP carried more than 250m items and achieved a profit of 239m. Ninety-five per cent of that volume and revenue was generated by the business-to-business sector of the market.

The range of services include Datapost - with same-day delivery round London and some other UK cities and delivery guaranteed by 10am the morning following collection with pick-up times as late as 5pm in most areas.

Super 48 - a new service launched this year - provides guaranteed delivery by the close of business the day following collection while Super 48 is - as the name suggests - a two-day delivery service. A Standard Service offers UK domestic delivery, three days after despatch.

As the backbone of the RMP service range, Standard now incorporates Trakback for its contract business customers who, for a fee, can now receive

confirmation of delivery. Both the "Super" services bring a free telephone delivery confirmation facility with inclusive loss or damage insurance up to £1,000 per item and moneyback guarantees on failure of delivery within the agreed timescale. Datapost has a higher insurance cover of £5,000 per item plus £100 - £10,000 for consequential loss insurance.

The three premium services are geared to items up to 30 kg while Standard service provides for higher weights. Using Standard, shipments can travel either via Direct Bag up to 25 kg per parcel with no limit on the number of parcels or via MATES (Mobile All Purpose Trolley Equipment) for consignments up to 364 kg, and there are also pallets for consignments up to one tonne.

Following two years of high Datapost growth with investment and expansion in both UK and International Datapost, Royal Mail Parcels is seeking new ways of securing its supply of essential aircraft capacity, particularly for its nightly domestic Datapost traffic. After years of relying on chartering commercial airline capacity, RMP is examining proposals on the formation of a joint venture company between RMP and JEA Jersey European Airways.

Operating in excess of 50

flights a night in the UK alone, RMP has become aware of its increasing vulnerability in the face of a growing scarcity of available night-time freighter capacity.

"We are highly reliant on this capacity," explains Mr Nelson, "and we have therefore looked at the feasibility of linking up with the private sector companies such as Securicor. Royal Mail extended the Airstream reach to meet the needs of smaller companies who deal with Securicor which in turn, collects and amalgamates the international airmail letters before passing them on to the Royal Mail Airstream network.

Moving into its stride as an autonomous division, Royal Mail Parcels in 1988 launched an aggressive marketing campaign in the face of increasing competition from the "new wave" express operators. However, progress was severely impeded by the 1988 postal strike which dealt RMP a crippling blow.

Admitting that the initial effects of the strike on the RMP operation were severe, Mr Nelson says: "First and foremost, it gave our customers the opportunity to 'feel' and experience the competition."

In spite of this, he claims that although it has taken until the beginning of this year "the recovery rate is flowing smoothly and our current year on year growth rate is now above 1988 - which means we have recovered."

One of the major effects of the strike, however, was the loss of confidence factor so that while customers may be returning to RMP for some services, there is high resistance to putting all the eggs in the RMP basket again for fear of

recurring strikes.

In a recent letter to the Union of Communication Workers, Mr Nelson highlighted the dangers for RMP in its continuing high degree of dependence on other post office businesses.

In a frank warning he advised that Royal Mail Parcels had lost the confidence of its customers and that, without the guaranteed provision of reliable, uninterrupted service, it would lose out on the business to business front - altogether.

"This situation has, more than anything else, opened the door for the likely adoption of the proposals embodied in a study document currently in circulation within the Post Office 'mill', which would, if approved, effect a further restructuring to separate RMP completely from the Letters Division with which it still shares many systems.

Arguing the case for simplifying the RMP operation to achieve higher standards of service quality and reliability, the Study Document, according to Mr Nelson, "is part of our attempt to respond to customers' needs."

"We recognise for example, that Parcels' customers require products that are not necessarily aligned to those of the Post Office others."

He gave the example of

control and flexibility to meet the customer needs.

While the formation of a discreet parcels division would enable RMP to tailor services more specifically to requirements, the move is nevertheless a political hot potato with the unions understandably concerned that a further restructuring, splitting parcels away from letters into a totally separate division, would leave Royal Mail Parcels perfectly platformed for privatisation.

While RMP has continued to refine and expand its domestic service range, international development has escalated rapidly over the past three years.

In 1987, the main European Postal Authorities formed a joint venture Express Mail Ser-

vice company - EMS, in Brussels, to handle their international express mail operations. Datapost EMS was a founder member of this new company.

Since then, in the face of increasing competition from the private sector and in the knowledge that international standards had to be agreed, another new company, called IPC, has been formed.

Funded and supported by the Postal Authorities of the UK, all major European countries, Australia, Japan, Canada and the US, IPC's prime task is to take over the management and development of EMS and its Brussels hub which provides the air services used extensively by International Datapost EMS and equivalent services in other countries for international express services.

Other IPC key tasks include the monitoring of services to ensure that quality meets pre-set standards and that products are harmonised throughout all member countries. In May this year, Royal Mail Parcels became the first Postal Authority to sign a partnership agreement with IPC.

Other founding members have followed and they are confident that IPC will appeal to many more international postal authorities. By signing the agreement, members are committed to meeting set service standards and their perfor-

mance will be monitored. If they fail, IPC reserves the right to turn to the private sector as alternative for carriage, in a particular market.

For its part of the bargain, IPC, as the administrator, operator and quality control body, must also guarantee its service standards and cost levels.

While the control and harmonisation of EMS should not present too many problems as it is already treated separately by those postal authorities operating the service, IPC will face a far more daunting challenge when it enters Phase 2 in its development. It will then take on the task of standardising the international tracking and tracing systems for members' Standard international parcels services, to ensure compatibility in all member countries.

While accepting that this will force Royal Mail Parcels into releasing some of its "sovereignty", Mr Nelson is happy enough to swallow that inevitable benefit from the advantages the IPC system brings.

"We already have a substantial share of the international express freight market as well as a worldwide operational network for our distribution services," said Mr Nelson. "What this agreement does is build into that, an improved tracking, quality control and research capability which, we believe, will match anything else on the market."

"In a sense, it is harnessing the strengths of the international postal community to ensure the highest quality of service for Royal Mail Parcels."

In the face of many challenges RMP still dominates the market

through a joint venture, as a means of providing capacity for our operation at the same time as giving us greater security of tenure." A final report on the formation of the joint venture company is due in July when a decision will be made.

This will not be the Post Office's first working association with the private sector. In 1988, the Royal Mail appointed Securicor as the first licensee for Airstream, an international bulk mail service.

Handling more than 80m items of mail a year, Airstream was launched initially to large companies for single postings of more than 2 kg of international airmail letters.

In linking up with private

Phillip Hastings sums up factors governing the selection of company fleets

Finance governs the choice

FOR the majority of people, the most visible aspect of courier/express industry services are the vehicles and motorcycles used to undertake collection and delivery work.

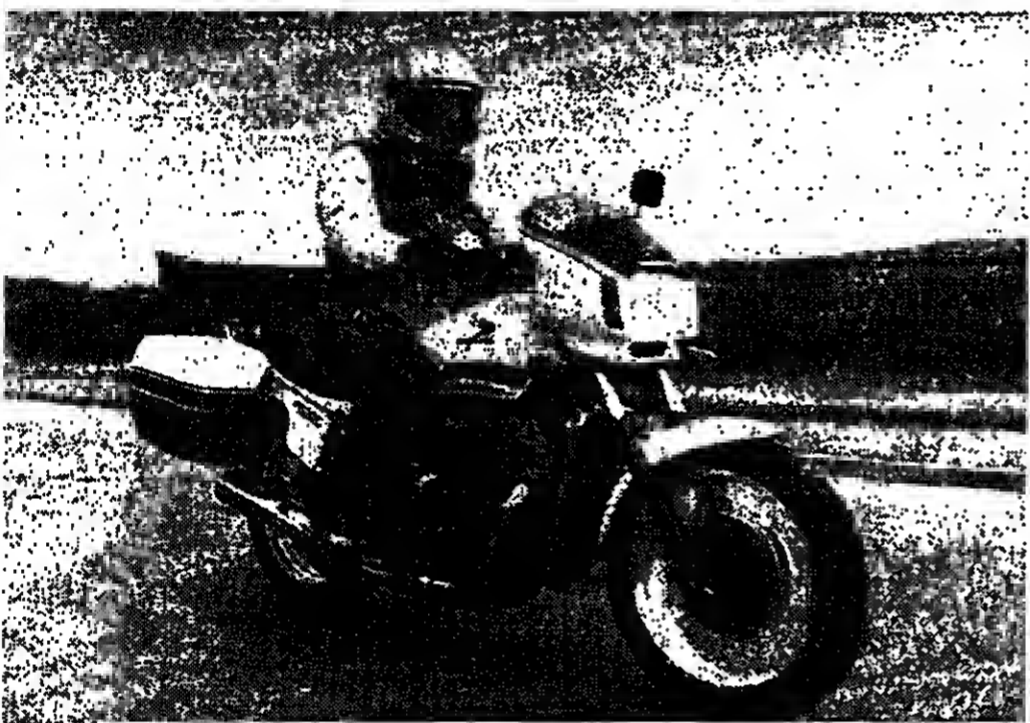
As a result, that equipment tends to become a marketing tool as well as an operational one - with company logos boldly proclaiming the name of the operator to existing and potential customers.

Decisions about fleet selection should theoretically, therefore, be based on detailed and objective assessments designed to spotlight the optimum equipment for the operations involved and also generally create a good impression of the company. However, in practice a fair degree of subjectivity tends to creep in, certainly among the medium and smaller operators.

Certain basic criteria have to be met, of course, but after that the choice of vehicle or motorcycle tends in many cases to come down to one of finance - for example, which dealer will offer the best terms - or the personal preference of the fleet/operations manager and drivers.

"During our early days, the thing which dominated our vehicle purchasing policy was the availability of finance but now we are better established we are looking much more at the quality and performance of different vehicles. For example, the latest vehicles we have acquired, through contract hire, are Mercedes 7.5-tonne vans," said the chairman of one medium-size UK domestic express parcels service operator.

"In my experience, there is generally little to choose between the higher quality vehicles, and the decision on which type to go for tends to come down to the experience of the local managers most closely involved with running them. They might be a little subjective in their assessment but if they are happy that the vehicles can do the job, then so be it."



Reliability and economy of performance are factors influencing the choice of motorcycles

Often, the first decision which a parcels operator has to make is exactly which of the many available methods of fleet acquisition to opt for.

With motorcycles, most operators either buy the bikes themselves and run a regular fleet replacement programme or employ owner-riders who have to sort out their own machines. Where vans and larger vehicles are concerned, though, the method of fleet acquisition can vary quite considerably. Many operators still opt for traditional outright purchase, using either their own cash or borrowed funds, but other options open to companies which are more cautious about spending cash include hire purchase, rental, financial leasing and contract hire.

Perceived advantages of using the cash purchase method of fleet acquisition include lower financing costs

and, for cash-rich organisations, flexibility in terms of vehicle choice and freedom of operation for the fleet.

Against that, there are a number of other cost factors which have to be taken into consideration. Chief among them is the impact on corporate cash flow.

An alternative to outright purchase is financial leasing which involves the lessee paying a rental for vehicles which he never actually owns. The rental pays the lessor's capital cost plus interest and profit over the period of the

lease. As with loans and hire purchase, costs such as maintenance and insurance are retained by the lessee.

Operating leases and contract hire are based on the lessor or contract hire company acquiring the vehicles, predicting the residual value of the vehicle at the end of the hire period and charging a rental which reflects the predicted depreciation over that period, the interest, the cost and the profit.

Contract hire is basically a form of operating lease which includes extra features such as maintenance, fuel and tyre costs, fleet management and even, in the case of commercial vehicles, the provision of drivers. Such arrangements can significantly reduce user companies' administration time and costs. Among other major advantages is that vehicles can be financed

off-balance sheet.

Fitting in with all the other methods of vehicle acquisition is rental. The often volatile nature of express industry operations, with strike action by postal workers, for example, and seasonal peaks generating sudden surges in traffic, can cause express operators to turn to short-term rental of vehicles to meet peak demands.

A typical express company approach to the subject of fleet acquisition was outlined by Mr Larry Peers, operations manager of Surrey-based express company Parcel Link. "We basically lease-purchase our vehicles and at the moment we have a fleet of around 32 Volkswagens and Mercedes. However, we also use short-term rental to supplement those at peak periods," he said.

In selecting vehicles, many factors, not necessarily compatible, have to be taken into account. That can mean a compromise in many cases. For example, drivers tend to prefer vehicles with more than one access door to allow easier loading/unloading but that can diminish security.

"For vehicles operated in London, it is useful to have side-door loading capability because of the traffic problems - vehicles often have to be parked in fairly confined spaces which means it can be difficult getting parcels in and out of the back of a van," said Mr Peers.

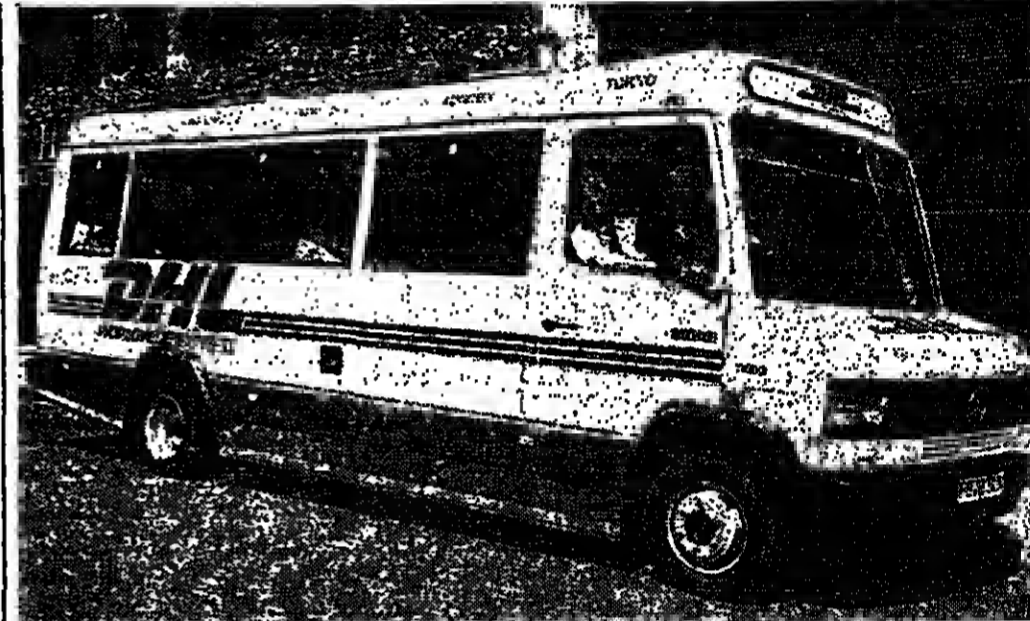
The same considerations have influenced the fleet choice of London-based courier company Speed Couriers, which in addition to a large fleet of motorcycles also operates 25 vans, mainly Peugeot Talbots and Volkswagens, which have both sliding side doors and rear access. Other important features, said Mr Brian Taylor, sales manager, include reliability and economy of performance.

Similar factors have to be taken into account by companies operating their own motorcycle. City Link Transport, for example, has standardised its new 67-strong London courier division bike fleet (the company also operates 17 vans in the city) on shaft-driven Kawasakis, mainly G750s. Supporting those are half-a-dozen smaller Honda 125s which are mainly used for training new riders.

To maintain efficiency and reliability - the Kawasaki bikes cover an average of 150 miles a day - the motorcycles are replaced with new machines about every six to nine months. Bikes cost around £2,000 each but by running a regular replacement programme, City Link is able to recoup good resale prices.

"We switched to the Kawasakis for our London operations because we found that chain-driven bikes tended to keep breaking down with all the wear and tear they received from stop-start operation. That is less of a problem in our provincial operations where the bikes tend to undertake longer runs. Generally, the most important features for us when selecting motorcycles are reliability and quietness, followed by economy of performance," said a spokesman for City Link.

Fan of City Link's London motorcycles have now also been equipped with trailers specially adapted to provide valuable additional capacity over and above the standard motorcycle panniers.



Jam-buster: a team bus, acting as a travelling "sortation" centre, accompanies couriers

OPERATING PROBLEMS

New ways to beat traffic congestion

WORSENING traffic congestion in major cities such as London and Tokyo is forcing courier/express companies to look at new ways of running their local collection and delivery work.

With the number and size of consignments steadily increasing, courier/express operators are having to employ more and more vans and larger vehicles to move consignments between their own depots and customers' premises.

However, the operators claim, vehicles are increasingly being held up in traffic jams for long periods, making it difficult and expensive to maintain a good pick-up/delivery performance.

Adding to those problems is the fact that in London, for example, vehicles are issued with parking tickets and even clamped while the drivers are away making pick-ups and deliveries. The latter is a particular problem for express operators because it can mean a vehicle is immobilised for several hours.

Latest attempt to try and ease that situation in the UK comes from DHL International which this month plans to introduce an operation that involves using travelling sortation centres, known as team buses, and accompanying pedestrian couriers to make deliveries.

Explaining the idea, Mr Barry Erlington, DHL central London operations manager, said specially converted Mercedes buses equipped with desk sorting areas will collect incoming documents from the company's sorting centre at Orbital Park, near London Heathrow, and then drive into the city.

During the drive, a team of five couriers will sort out the consignments into individual delivery rounds.

Once in the city, the couriers will be dropped off at specific points to make their deliveries and then rejoin the bus at another point to collect items for their next delivery round. Each bus is expected to deliver some 500-700 shipments a day under the guidance of a team leader who will also drive the vehicle.

"The team buses will leave the Orbital Park sort centre at 7am each day - any incoming material destined for the London areas they cover will be

sent on later using feeder vehicles which will meet up with the buses at various points during the day," continued Mr Erlington.

Initially, two buses are being put into operation to service the London W1 area. Later this year it is intended to expand

the operation to include the WC1 and WC2 areas and then in early 1990 to the EC1-4 districts.

Meanwhile, heavy traffic congestion in Tokyo is already forcing courier companies such

as DHL Japan and TNT Sky-pak to make much greater use of standard motorcycle operations, i.e. bikes operating out of a depot to maintain often tight collection/delivery schedules.

Now, Sky-pak is looking at the idea of taking that idea a stage further by setting up van/motorcycle hub and feeder operations. They would involve a van or truck being parked in some convenient location and riders on motorcycles being used to cover a local area and feed traffic into and out of the vehicle.

"The company may also consider putting some of its local collection/delivery personnel on foot, particularly in areas where there are a lot of large office buildings which can be more efficiently served that way."

Phillip Hastings

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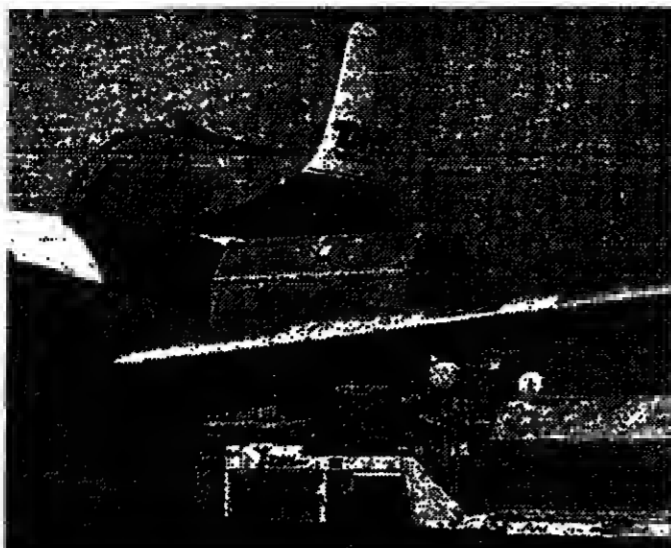
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COURIER and EXPRESS SERVICES 4

Phillip Hastings investigates the impact of the US giants

Invasion across the Atlantic

USING the massive United States domestic and international air express market as a springboard, major American companies are pushing hard to establish dominant positions in the United Kingdom and general European courier/express business.



Hub of operations: DHL has nightly air links with 26 points

Federal Express, United Parcel Service, DHL (founded in the US although now a multinational organisation) and Emery Worldwide head a list of US companies prominent in the fierce battle for European market share with generally smaller locally-based operators and the powerful TNT organisation from Australia.

However, in spite of millions of dollars being invested in Europe by the US giants to support major operational developments and often aggressive marketing campaigns, they are far from having things all their own way.

Federal Express, for example, has made slower progress with European developments than expected and incurred losses in the process; UPS has taken a very cautious approach and really only begun to accelerate development over the past nine months; DHL is still working hard to expand its established presence in the courier market to the broader air express field; and Emery

was recently bought by Consolidated Freightways and is only now beginning to enhance its profile through a series of acquisitions.

European observers maintain that US companies initially underestimated the differences in approach needed to achieve the same sort of service levels and success in Europe as they had already

produced in the US. "Even now, Europe is still a series of markets, separated by borders and Customs procedures, rather than one huge domestic market. The operation of reliable overnight delivery services in particular is still rather more complex in Europe than it is in the US domestic sector."

It seemed to take a little while for some of the US

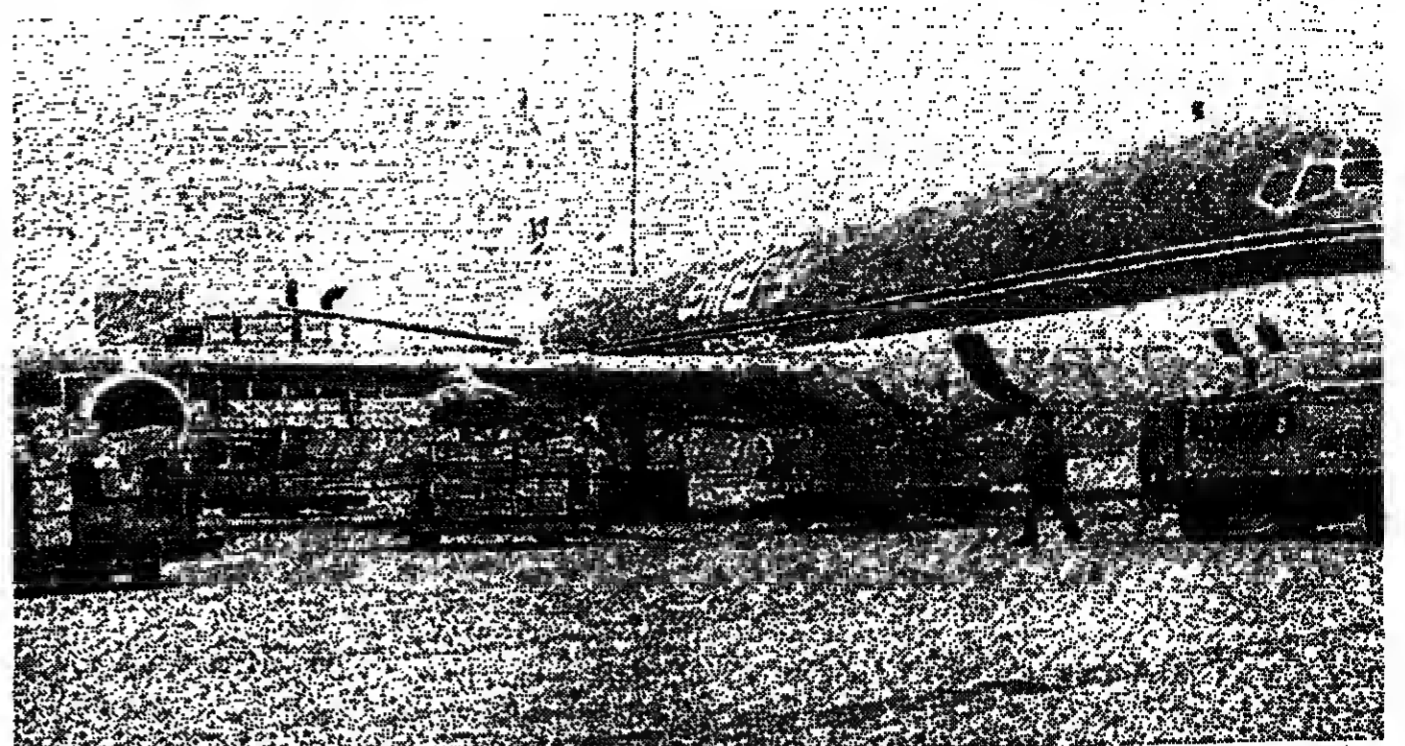
companies to fully appreciate that fact," commented an executive with a leading European express service company.

He and other observers also maintain that initial efforts by the US companies to develop a European transport infrastructure geared to handling both intra-European traffic and Europe/North America shipments ran into problems trying to cater successfully for two rather different markets.

However, while the US express industry invaders may have taken a little longer than they expected to start successfully getting to grips with the European market, the sheer size and strength of their organisations is helping them to overcome initial difficulties and become an increasingly powerful force in both the UK and on the Continent.

The largest small package carrier in the US, UPS has been particularly aggressive in recent months. Moves have included expanding its parcels delivery schedule to include some 40 countries worldwide, including all the European Community, and the acquisition of European service partner companies in the UK, Belgium, the Netherlands, France, Switzerland, Denmark and Finland.

Meanwhile, rival US parcels



New image: Emery was recently bought by Consolidated Freightways and is only now beginning to enhance its profile

giant Federal Express has over the past 18 months significantly strengthened its European senior management team and pressed ahead with the opening of more new stations in Continental Europe.

Plans include the opening of more stations and development of additional UK/Continent feeder flights.

For its part, DHL has this year rationalised its European operations by integrating the express service operations of European subsidiary express freight delivery company Elan International with the parent organisation.

Previously DHL, still best known for its handling of documents and small packages, and Elan, which specialised in carrying heavier parcels and freight, had marketed their products

separately. Commenting on that move, Mr Brian Fittall, managing director of DHL international UK, said that much of the reasoning for opting to integrate services centred on the planned single internal market in Europe.

"We took a hard look to see what else we should be doing to prepare ourselves for the single market and included in that was a review of the DHL and Elan activities. That led to the decision to integrate the activities," he said.

Coupled with that restructuring of activities, DHL has also now established a new "region" called "European air and hub" which is basically a specialist division to manage the organisation's expanding intra-European linehaul system.

That division now runs an intra-European overnight air operation centred on a recently-expanded hub at Brussels International airport. A fleet of predominantly seven-tonne capacity Convair 580 aircraft now maintains nightly air links with 26 points in Europe and Scandinavia.

Main international services now operated by DHL out of the UK cover the worldwide express delivery of both documents - a traffic which totalled around 3m items in 1988 - and dutiable items up to around 50 kg. The company is also stepping up efforts to

attract more of the heavier weight freight as well. Emery Air Freight became the first US express/air cargo company to operate daily transatlantic freighter flights with the launch in 1985 of DC8 operations. Those flights use Manchester, England and Maastricht in the Netherlands as European hnh points. Subsequently, the company went on to develop intra-

European courier/express services under the Emery Worldwide banner using a hub-and-spoke air network centred on Maastricht. However, Emery found it hard to combine its established image as a traditional airfreight forwarder with a high profile in the international courier/express service field. That was one of the factors which eventually led to the company's acquisition earlier this year by another US freight company, Consolidated Freightways, for \$230 million. Airfreight operations, including express activities, of the two companies have now been merged within one company which operates under the name Emery Worldwide, a CF company.



Worldwide headquarters of DHL in Brussels: It handled about 3m items in 1988 and is trying to attract heavier weight freight

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COURIER and EXPRESS SERVICES 5

David Robinson discusses remail services

Post-hastened deliveries

CONFIDENCE in the reliability of international mail services has been hit in recent years by labour disputes and other problems, which contributed to the expansion of remail services around four years ago.

For private carriers this provides the opportunity to exploit the difference between the price charged by a post office to deliver international mail and the delivery costs that the private carrier can either negotiate with the post office in the country of final delivery, or could obtain by using the domestic postal tariff in the country of final delivery.

moving into this field. Initially, postal authorities were very concerned about the threat of remail and some resorted to legal means to try to stop services. As time went by and relationships were forged between the remailers and post offices, so a better understanding has developed.



Sorting mail at Hounslow

However, little progress has been made except the setting up of remail committees by the Association of International Courier and Express Services in the UK and the International Express Carriers Conference in the USA.



Paul Moorhouse

The current market growth is estimated to be some 50 to 60 per cent a year with the total market being around 12 million items a day. This excludes the KLM magazine business. "Customers get a better service through private enterprise," says Mr Paul Moorhouse, general manager of TNT Mailfast. "There has been a dramatic increase in the quality of service by the post offices but they cannot compete with the private systems and problems on co-ordination," adds Mr Moorhouse.

Singapore they actually reduced international postal charges to 50 per cent of overseas destinations by 25 per cent. Having put in place such a large remail infrastructure, and Mr Moorhouse considers there could be another five to complete the network, TNT has introduced a wide range of added value services to meet all possible customer requirements.

WHOLESALE The answer for small operators

WHILE "big is beautiful" appears to be the order of the day in the international air express/courier business, smaller operators do have the opportunity to compete and develop their own services by using the wholesale companies.

Wholesaling or co-loading allows smaller companies and even larger operators with small volumes to infrequent destinations to combine consignments through a co-ordinating company and thereby offer an international service. Such methods offer an economic alternative in that small companies do not have to support their own linehaul operations or overseas offices.

availability of services to smaller businesses. Mr Mike Humphries, the Securicor director responsible for the service, said that "month on month Airstream has been expanding at an average of 28 per cent and that the next two years should see major growth. Relationships with the Royal Mail have also developed well and we are looking to a long-term arrangement."

One area of concern is the standard of services provided. A number of the major operators have been trying to establish both international and national bodies to monitor standards and regulate operators.

have been reviewing very carefully the balance between their remail and courier activities. DHL's remail service, known as Worldmail, was introduced in September 1986 and has shown consistent growth. TNT, which claims to be the market leader in remail services with TNT Mailfast, has invested several million pounds in establishing 55 remail centres in 33 countries. This includes five in the US, two in Canada, three in Australia and nine throughout the Caribbean and South America.

There are few restrictions for remail. TNT will handle anything over 1 kg which can be picked up from the customer. Tariff differences between postal services depend on the profit margin of the national postal authority concerned. In the UK, TNT claims its services are between 6-10 per cent cheaper than Royal Mail, while in the US it is 25 per cent about the same in Australia. "The fact of this price competition has," comments Mr Moorhouse, "not only resulted in more competition from the postal authorities but encouraged others to introduce lower cost increases than they might otherwise have done so. In

However, with the ever increasing range of services available, companies using wholesalers do need to monitor both costs and service standards if they are keen to maintain quality of product. Competition is fierce and margins are slim making the wholesale operators, where they are not airlines themselves, vulnerable especially to larger companies prepared to use price incentives to win market share before stabilising prices.

The growing involvement in the wholesale business by airlines was blamed last October

Companies need to monitor both costs and service standards

on the demise of Wholesale Courier Network which had been one of the larger and more established companies in the business. WCB, formerly known as Inflight Courier Co-Load, went into voluntary liquidation with total debts in excess of 2400,000 against assets and outstanding money owed of around 2250,000. British Airways was the largest creditor being owed 2347,886. WCN started in 1983 and apart from its Heathrow base had operations in Australia, Tokyo and the USA. After a number of problems which affected cash flow, WCN faced added competition from British Airways which extended its service network by the takeover of British Caledonian.

Mr Geoff Bridges, managing director of British Airways Cargo, in reviewing the airlines cargo results described Speedbird's development as a "special achievement". It now covers 52 cities in Europe, North America, Africa, the Middle East and the Far East. Mr Bridges added: "The service is now able to handle an annual volume of 4,000 tonnes between any two cities. The wholesale service had proved to be a major innovation in the growing express services industry, with volume growing by more than 100 per cent. BA is putting in place a global network of 60-plus centres directly served from London with about 90 others through partnerships. The system is based on hubs in Singapore for the Far East and Miami for the Caribbean and South America. New York is BA's busiest route and the airline is now increasing its selling of this point-to-point network.

For the freight forwarders wholesaling provides a solution and an opportunity to broaden their services in competition with the integrated carriers. The latter have in turn been showing increasing interest in the movement of heavier freight which is the freight forwarders bread and butter business.

For European operations freight forwarders have a new ally in the form of European Expedites which launched its operations at the end of March. Mr Dallas Sherman, European Expedites' president, commented at the time of the launch: "We are providing complete service for forwarders and express companies who have been excluded from the world's biggest revolution in freight transport since containerisation."

European Expedites, a subsidiary of Guinness Peat Aviation, describes itself as the first European wholesale express airline. From its Brussels hub it is initially serving 18 destinations including London, Stockholm, Copenhagen, Gothenburg, Paris, Luton, Amsterdam, Frankfurt, Stuttgart, Basel, Cologne, Bergamo and Madrid.

in the UK, claims to be the only company able to provide a wholesale network in Africa. All West African countries are served and IEC has offices in nine including Nigeria, Ghana and Liberia. It operates a hub in Senegal and mini-hubs in Cameroon and the Ivory Coast. IEC handles some 27,000 shipments to West Africa each month and about 2,500 into Europe.

The company's start-up fleet consisted of four Convair 580s, two Falcons and a fleet of Beech 95. Other aircraft are used under joint arrangements with other airlines. It is not European Expedites' objective just to serve Europe, although under phase two of its development plan services to Scandinavia, Austria, Greece and extensions to Manchester and Glasgow in the UK will be introduced. Under phase three it is proposed to start longhaul services to North America and the Pacific Rim. No date has been put on

Scan International is another specialist company which originally concentrated on the Scandinavian market, but has extended its services to 32 major cities in Europe. Scan provides wholesale courier and freight services on a door-to-door basis. It is now undergoing expansion with the opening of a hub in Brussels, a new London-Hong Kong service and the prospect of services to the US. Within the fast-developing express services industry the wholesale sector plays a vital role in giving customer choice and allowing smaller operators to compete with the larger companies and integrated carriers.

There appears to be no slowing down in the pace of development, just a question mark on how far the market can grow.

David Robinson

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COURIER and EXPRESS SERVICES 6

The forwarders fight back

Tame reply to threat

IN SPITE of the increasing incursions of the large air express companies - UPS, Federal Express and DHL - airfreight forwarders in Europe still control 90 per cent of conventional airfreight volume.

The express companies have stolen an early march over the airfreight forwarders and airlines in the light weight, premium, small package market segment but while they would like to achieve a balance and capture some of the larger size traffic, those elements that have traditionally moved by airfreight, they are experiencing difficulty increasing their equipment weights in Europe.

For that and a number of other reasons, the airfreight forwarders remain complacent about the new competition and the threat it represents. Yet, recent changes in transportation trends, increasing adherence to Just in Time inventory control, coupled with the expansion of the air express operators in Europe, positively demands a competitive response from the forwarders.

The fact that the majority of air express and courier services and their systems are suitable for the carriage of small parcels only, is irrelevant; the shippers today like what they hear about the door-to-door express services and they are now demanding that their forwarders provide a guaranteed service for one inclusive rate with a single piece of documentation.

For shipments below 100 kg (and with the application of JIT inventory control, smaller shipment numbers are escalating) pressure on the forwarder to supply a door-to-door express service, is even greater. The high frequency, groupage surface operator can quite easily - and cost effectively - introduce express services. For the airfreight forwarder, however, there are a number of major hurdles to be overcome before they can a) provide these services, and b) make a profit from them.

warders have been able to make a genuine air express response to the market demands primarily because they will (unless they control their own airlift) have to involve a number of third parties to do so. To compete effectively, they have to provide a premium, reliable, air express service at competitive rates. In most cases, this will demand the use of scheduled airline capacity and the airlines will expect a premium rate for the high service standards they must meet. The forwarder will incur various other costs including collection, delivery, 512B airline storage charges and handling charges.

Even those few that have entered the market, readily admit that making a profit on a door-to-door, air express service that relies on scheduled airline capacity, is extremely difficult. Couple this with the fact that the scheduled airlines often fall short on service standards and there is the reason why, in the early 70s, Emery chose to reduce its dependence on the scheduled carriers and invest in its own aircraft fleet.

Since then, Emery's move has been emulated by other American forwarders, CF Air (which recently acquired Emery), Airborne and Burlington among them. Emery's pioneering moves as an airfreight forwarder, into door-to-door air express with its own aircraft fleet, have been well chronicled. The large American company with its international network and considerable experience in the market, was acquired in April this year for \$230m by CF Air, the successful airfreight arm of the giant US trucking company, Consolidated Freightways. The two operations have since merged under the umbrella of "Emery Worldwide - a CF Company" providing am, pm and second

day deliveries throughout North America and Courier Express, Air Cargo and Economy services, internationally. CF Air was already operating its own aircraft and the combined fleet now comprises 80 DC8 and B727 freighters which operate throughout the US from the Dayton, Ohio, hub with a daily DC8 freighter operation on the North Atlantic into Maastricht and Manchester. The company's systems and services are all geared to shipments of any size, any weight from conventional parcels to conventional air freight.

Back in the UK, one of the freight forwarders who has braved the air express elements is Rockwood International Freight. Comprising the recent freight forwarding acquisitions of Rockwood Holdings, a consistent USM star performer, Rockwood International represents the combined operations of Walford Meadows and Mercury. Before its acquisition, Mercury responded to the air express threat with the launch of QuickSilver Express, a defined time, door-to-door or door-to-airport air express service which has been operated primarily in Europe. At Rockwood International Freight, Mr Peter Quantzill, managing director, believes that the forwarders are well equipped to compete in the express arena although he does agree that it is not easy to find airlines capable of meeting the required service standards. That said, while the express operators specialise in the fast carriage of small parcels "the forwarder," says Mr Quantzill, "can offer a menu of options including a timed, express service, and that's our strength."

ropean road express services which it promoted as "faster and cheaper than air". Today, a number of surface forwarders with their concentration on the 25 kg to one tonne weight bracket, are making a determined bid to carve themselves a niche in the European express market ahead of 1992.

One such is Davies Turner which, with 120 years in the forwarding business, is working now to achieve full recognition as an express trucking operation. For years, the company has enjoyed an excellent reputation for reliable, high frequency Groupage services. Today, as its departures reach maximum levels, the company has grasped the opportunity to move its service range "up market". Same Day and Next Day delivery express services have been added to the Davies Turner Groupage operation between the UK and Germany - Davies Turner's fastest growing European market.

On many European routes the company's normal daily departures are every bit as fast as so-called "express" deliveries but at much lower rates. From London, Manchester, Birmingham and Bristol, Davies Turner operates daily trailer services to Ireland. "If we have the freight by noon, it will be delivered to the customer in Dublin and environs by noon next day and there are rapid transfers to western Ireland," says Mr Phillip Stevenon, Davies Turner joint managing director, who continued: "As Groupage operators, we've got used to living with low costs and rates so half those of the express companies in the 25 kg to one tonne bracket. Basically, anything over 25 kg to Ireland or near Europe, should move by surface transport."

Back on the air express front, there is, however, a new

very real opportunity for those forwarders wishing to expand profitably into this market. It comes in the form of a company called European Expedito - a Brussels-based, newly-formed subsidiary of GPA Guinness Peat Aviation, the Irish aircraft leasing giant.

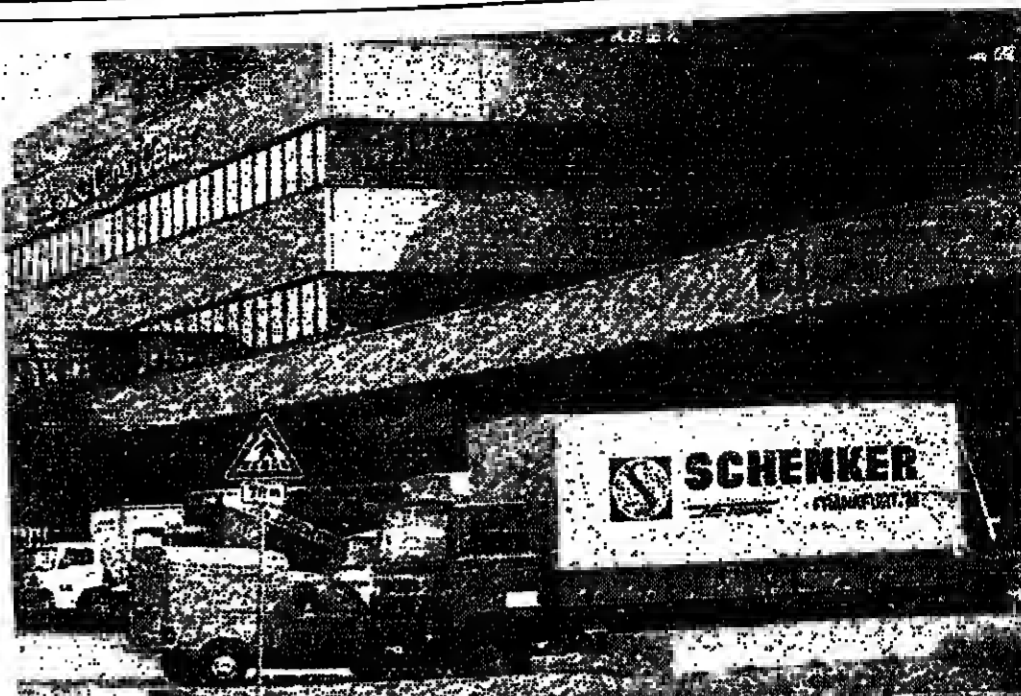
Formed by GPA after its attention was drawn to the burgeoning air express market European Expedito is a neutral, wholesale, overnight European express system supported by the company's own aircraft fleet.

In marketing its services to the forwarders since its spring '89 launch, European Expedito has faced an uphill struggle in a generally unresponsive freight forwarding market. Looking at forecasts predicting air express, door-to-door growth rates in excess of 40 per cent a year, European Expedito firmly believes there are excellent opportunities for freight forwarders who wish to capture a share of this market.

"But," says Dal Sherman, president, "the forwarders first have to recognise that to keep a hold on their business, they are going to have to change their whole philosophy to be able to meet the door-to-door demands of the shippers."

The European Expedito concept embodies the company's recognition that for the forwarders, the investment required for marketing air express services and for the ground delivery and collection systems, is considerable. It therefore proposes that, instead of using dedicated, expensive aircraft or co-loading on competitors' aircraft or using scheduled airline services at unsuitable times of the day, the forwarders can easily and cost effectively adapt to the requirements of the overnight door-to-door air express market. This will mean using European Expedito which will tailor the service to the individual company's needs as either fully door-to-door with clearance or any other combination, eg, door to airport.

Anne Hunter



Lufthansa is to introduce a new express service in conjunction with subsidiary C+D Luftfracht. A Speedbird Courier (below) leaves Heathrow aboard Concorde. Picture: Ashley Ashwood



The role of scheduled airlines

Flight plans go awry

SCHEDULED airlines are in the main still struggling to produce a really effective response to the advent of integrated courier/express service companies which use their own aircraft and trucks to operate fast door-to-door delivery services.

A few carriers, notably leading European airlines such as British Airways, KLM, Lufthansa and Air France, have over the past few years introduced new door-to-door and airport-to-airport products aimed at trying to secure a niche in the international express freight market.

In most cases, those initiatives have involved trying to develop services in conjunction with their traditional business partners, the airfreight forwarders. Generally, though, these services have achieved only limited success.

Meanwhile, some of the flight schedules are governed by the needs of passengers

their main business is passengers. At the same time, airlines find it difficult to run the cost-efficient ground pick-up and delivery systems that are vital in the operation of overnight express freight services.

"They cannot take advantage of any economies of scale when it comes to those sort of operations," he added.

Because flight schedules are basically geared to passenger demands, BA in a bid to counter one of the problems highlighted by Mr Stahl introduced an operation called Mid-night Express which involved running night-time B757 passenger aircraft flights between London Heathrow and Brussels to provide bellyhold cargo space for courier/express companies moving consignments overnight between the UK and the Continent.

However, difficulties with customs clearance at Heathrow forced BA to drop the service last year. Now, BA is concentrating on the development of international wholesale courier services, apparently with far greater success.

SAS, too, is having another go at the European express freight market. Efforts are now being concentrated on a product called Priority Cargo which involves using bellyhold capacity on its DC9 passenger aircraft.

The service offers speeded up acceptance/delivery operations, moneyback offers for broken promises on transit times arising from any SAS shortcomings.

Other leading European airlines are looking more at the longer haul sectors of the international express freight market.

The Netherlands' national carrier KLM, for example, is pressing ahead with further development of KLM Express, an operation specifically set up to run express delivery-to-the-door freight services. Initially, the emphasis is on developing traffic from overseas markets such as North America and the Far East into the Netherlands and the rest of Western Europe via Amsterdam's Schiphol Airport.

Two products are being marketed under the name KLM Cargo Doorspeed, one for parcels up to around 25 kg and the other for larger consignments. However, development of the smaller parcels service has been hampered by KLM's recent sale to TNT of its Intra-European distribution company, XP Express Parcel Systems, which had been handling the onward movement of incoming Doorspeed small parcels traffic from Schiphol to final destination in Europe. As a result, KLM is concentrating on building up the development of heavier items, mainly in the 30-50 kg range, which are moved on from Schiphol to

final consignee by truck. Meanwhile, West German national airline Lufthansa is this month introducing a new service called ADEP (Airport to Door Express Cargo) in conjunction with its established express subsidiary organisation C+D Luftfracht System (Collect and Deliver Airfreight System).

The new service is designed to allow freight agents and domestic transport companies to offer their customers international door-to-door delivery services under their own name. That is achieved by delivering consignments to the nearest Lufthansa cargo centre, from where they will be flown to the destination airport, cleared through customs and delivered to the consignee.

Taking a rather different approach to the express freight market is Irish airline Aer Lin-

Limitations of route networks are a problem for airlines

gus. In what is claimed to be the first development of its kind, the carrier last year joined UK-based parcels carrier Securicor to set up a European door-to-door distribution company called Aer Securicor. That company now operates intra-European parcels delivery services using Aer Lingus and Lufthansa air operations which link up Ireland, the UK and the Continent.

For Aer Lingus, formation of Aer Securicor has opened up the way for the airline to get in on the intra-European express market action without running into the sort of groundside problems experienced by many other carriers.

Main benefits for Securicor centre on the opportunities to build up better air links in Europe without the need to invest heavily in its own aircraft capacity.

A major problem for other airlines seeking to develop express business, centres on the limitations of their route networks. Customers generally prefer to use one or two express companies to handle all their shipments to worldwide destinations. An airline operating in particular markets can find it difficult to service points outside its own service network.

Those sort of considerations have prompted UK airline Virgin Atlantic, for example, to link up with courier company FRX International with a view to jointly developing courier/express traffic on the carrier's routes to the United States and Japan.

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COURIER and EXPRESS SERVICES 7

Phillip Hastings reports on the search for new markets

Asian and African excursions

RAPID expansion of courier and express services in Europe and North America over the past few years has tended to overshadow the industry's development in other parts of the world.

However, leading international courier/express organisations are now also pressing ahead with substantial expansion of operations in other major trading areas, notably Asia, and many of the economically less significant markets.

Not surprisingly, dynamic economic growth in Asian trade with the rest of the world is helping to markets in that region high on the list for express service development behind North America and Europe - in fact, the Far East is now firmly established as the third point in the main triangle of coverage for the majority of global express operators.

Initially, much of the thrust into Asia by express companies involved the Pacific area, i.e. trade with North America, as major United States operators such as Emery Worldwide, Federal Express, UPS (United Parcel Service) and Burlington Air Express built up services using a mix of own aircraft capacity and scheduled airline flights.

Over the past 18 months or so, though, the Europe/Asia sector has also come in for greater attention. Helping to inspire that trend has been the tendency among Far East exporters to try and sell more of their goods in Europe to take advantage of stronger currencies there.

Latest example of the increasing accent on development of Europe/Asia express services comes from Federal Express which, following completion of its acquisition of US cargo airline Flying Tigers next month, intends to use some of the latter's freighter aircraft to fly express traffic between Europe and the Far East.

"From August 7, we will be able to use a B747 freighter out of London Heathrow which will give us daily Far East linehaul capacity via Anchorage to Japan, Korea and Taiwan, and links into Hong Kong, Singapore and the rest of the Pacific Rim region," said Mr David Wilcock, managing director of Federal Express UK international division.

He believes development will encourage Federal Express to generally raise the profile of its Asian services in the UK market, although the actual volume of business could depend greatly on how much UK exporters decide to try and develop Far East business at a time when much of their attention appears to be focused on Europe and 1989.

One of the most important Asian markets for the express industry as a whole - and one which is now seeing considerable courier/express service development - is Japan. However, major western express companies such as DHL, TNT, Skypak, Federal Express and UPS are having to adopt a somewhat different approach

"The Japanese are fanatical about service quality and believe that the standard service should be the best possible, anyway."

Not surprisingly, Japanese shippers can tend to show a preference for using Japanese companies to move their documents and parcels. However, contrary to the possibly prejudiced view of some less successful outsiders, say locally-based express industry observers, that preference is not simply nationalistic favouritism.

"In my opinion it is not generally true that Japanese businessmen will use an express or courier company simply because it is Japanese. It is much more down to a company's ability to understand

working steadily, it still somewhat ponderously, towards improving the situation.

Rather less dynamic than Asia in terms of express industry development is the Middle East market, a situation encouraged by the subdued nature of that region's overall trade with the rest of the world over the past two or three years.

Main centres are generally included in most leading courier organisation's networks for document/small package traffic but there has generally been rather less development of other express parcel/weight services as operators have tended to concentrate on more exciting markets.

Major operators are also steadily increasing their coverage of Africa, although that continent can often present particular problems for courier/express companies. Some black African centres, for instance, are poorly served by scheduled airline services, making it hard for the couriers to offer the high speed delivery times available in other parts of the world.

At the same time, certain African post office organisations still appear unhappy about having to compete with fast-growing courier operations and on occasions attempt to put restrictions on them, while other countries continue to be generally suspicious about the whole idea of courier services.

Because of its size and general economic importance, Nigeria is one of the most advanced black African markets when it comes to express service development. Prominent in that market is IML, the UK courier company recently acquired by US parcels giant UPS.

Operating in Nigeria as IML, the company reckons to have more than 50 operating units in that country. In terms of services, the organisation claims to offer next-day deliveries from the UK to Lagos and a number of other major Nigerian centres including Kano, Enugu, Ibadan, Kaduna and Port Harcourt. From other parts of the world, services include two-day delivery from most of IML's African traffic is routed via the company's London hub operation.

More positively, the Chinese authorities are apparently aware of most of their shortcomings in areas such as communications and are said to be



Federal Express aims to raise the profile of its Asian services

to developing business in Japan from that used in North America and Europe.

Japanese businessmen tend to be fairly conservative and slow to change established practices. Converting them to using new courier and express services can therefore take considerably longer than might be the case in other parts of the world.

Also very much part of the Japanese business culture is an expectation of high service performance as a matter of course. Any failure is viewed far more dimly than in Europe or the United States, for example.

"Japanese customers expect to be told immediately of any problems but more than that, they also expect to be told what has been done to resolve them and receive assurance that they will not happen again," commented Mr John Morrison, the regional sales marketing manager for TNT Skypak Japan.

"That same level of expectation also means that it can be difficult to sell the concept of a premium service."

A QUICK look through the Yellow Pages directory for most parts of the United Kingdom will reveal a seemingly ever-growing list of local courier companies using motorcycles and vans to serve their own catchment areas and further afield.

In London, for example, there are at present reckoned to be something like 180 companies operating quick response motorcycle messenger services, ranging from the one-man-and-a-bike brigade through to leading operators with fleets of 50 or more vans and motorcycles.

Also included in that number - and now noticeably stepping up their presence in that market and in other parts of the UK - are the local messenger and instant response divisions of major national and international organisations such as Federal Express (Rapid Despatch), Securicor (Pony Express), TNT (TNT Courier), and City Link Transport.

Over the year or so, for example, Federal Express has launched a concerted drive into the UK same-day delivery market. Initially, efforts are being concentrated on building up operations in the London/M25 area but by mid-1990, the company plans to have same-day operations up and running in at least five major UK centres.

They will in turn form the foundations for a nationwide same-day pick-up and delivery service to be built up over the next couple of years.

Starting point for that development was the Federal Express acquisition towards the end of 1985 of London-based Winchmore. Developments, a well-established operator in the London document and small package market where it traded as Concorde Despatch and Britannia Despatch.

Between them, those two courier companies have given Federal Express a same-day collection and delivery fleet of some 220 radio-controlled

LOCAL COURIER COMPANIES.

Where the going gets tougher

vehicles, including 95 motorcycles, 20 light vans and 165 cars.

Meanwhile, Securicor's same-day despatch operation, Pony Express, is now rapidly being expanded to cover most major business centres in the UK. Over the past eight months, new branches have been opened in Croydon, Northampton, Cardiff and Southampton to bring the total to 20. Further branches are due to open in Basingstoke and Maidstone by the end of this year and plans are being drawn to open another three or four

vehicles, including 95 motorcycles, 20 light vans and 165 cars.

operates a fleet of 35 motorcycles and 25 vans. The bikes are owned by their self-employed riders, while the vehicles are leased by Speed Couriers and driven by company employees.

Reflecting the general growth of the courier/express industry over the past few years, Speed Couriers has already expanded its operations well beyond just the London area on-demand collection/delivery market. The company uses Datapost and Red Star, for example, to handle UK nationwide and interna-

national deliveries. The company also runs its own scheduled overnight services both within London and to selected centres outside.

More recently, Speed has developed specialist distribution operation on behalf of printing companies, moving material between customers in the London and Home Counties region and printing house in various parts of the UK. In a similar vein, the company plans soon to introduce a specialised service for the movement of pictures and other works of art.

While Speed's specialist services have grown out of its standard bike/van delivery operations, other companies, particularly some based in the London area, have specifically targeted certain industries and business sectors.

Citi-Connections, for instance, claims to offer a package for financial and media companies which ranges from instant response courier/van services in the City of London and Home Counties to a national and international courier service, electronic mail and telex links, a combined City-tax and hand delivery operation and computer mail/printing facilities.

Although London has not surprisingly seen the biggest boom in local courier operations, there has also been rapid development of express services in other parts of the country.

In some cases, companies which began life covering particular regions have gone on to develop nationwide services through agreements with part-

ners in other parts of the country or membership of consortiums, in the latter case sometimes via franchise arrangements.

However, many local messenger companies have found it tough to expand their business beyond their particular home areas. Over the past two or three years, for example, a number of London-based motorcycle/van couriers have attempted to develop operations in other major centres such as Manchester and Birmingham. Most have subsequently been forced to pull out, but only after price wars which have also undermined the progress of locally-based operators.

Cites the size of Manchester, Birmingham and Glasgow in fact generate fairly substantial volumes of business and with the continuing growth of regional newspapers/publishing house, advertising agencies and light industry, the traffic profile is similar to that of London's West End. That has helped several regionally-based companies develop into quite sizeable operations in their own right - Birmingham-based BXT, for example, now has some half a dozen offices covering and an annual turnover approaching £2m. Even smaller cities such as Leicester tend to have two or more specialist courier companies.

However, they still have to contend with the basic problem for most courier companies operating outside London - the fact that although most day-to-day costs are the same as in London, there is far less regular business available. That makes it harder for service operators to double up on jobs using the same bike or van, particularly on longer hauls. Attempts to do so often provoke adverse reactions from customers unhappy about slower delivery performance.

At the same time, competition is intense, even in the less economically buoyant parts of the UK. Many unemployed people have used the government Enterprise Allowance scheme to set up small bike and van despatch operations in places such as Newcastle. Often operating from home with very low overheads, they can survive on lower rates than more substantial organisations.

Adding to the problems of too much competition have been efforts by some general freight transport and road haulage companies to build up courier services as an adjunct to their mainstream business. Taxi firms, too, have got in on the act, some of them quite successfully if only through acting as the local collection/delivery agent for a larger courier/express organisation.

Phillip Hastings

SECOND-TIER OPERATORS

Companies keep grip on 'smalls'

including Interlink, ANC and City Link which last year was rated number one in a major independent survey of the UK express parcels industry.

Among the early starters 20 years ago, City Link until its May 1989 acquisition by the Securicor Group plc, was the largest privately-owned British express parcels company. It was also the first transport company to move into franchising, a concept which has been adopted in the courier and express parcels market by others such as Interlink, ANC and Nightflight.

In the progressive development of its nationwide door-to-door, express service, City Link, with its range of Same Day, Next Morning and the express document service, Linkletter, has established a UK branch network of 47

the business, City Link attributes its success to an early co-concentration on Same Day and Next Morning services. According to Mr Thomas: "Others have homed in on Next Day services and now they are having to upgrade to next morning, timed deliveries and, to a lesser extent, Same Day services."

In 1987, City Link introduced Phase 1 of its European expansion plan with the launch of Linkletter-International and City Link-Europe as express door-to-door services for documents and parcels. Phase 2 is now under way with the opening of a new Paris office to spearhead the European development which will be achieved either through acquisition or through "start-up" efforts of its founder Mr Ian Sayer, who has many years experience in the UK and European express markets through his own company, Sayer Transport formed in 1968 and later sold to IPEC. Since that time Sayer has worked with a number of companies in their development of European express parcels networks and services.

The foreign operators have found that breaking into the UK express parcel market was not nearly as easy as they had originally expected

offices, 15 of which are company-owned and the remainder by the franchisees. This considerable network enables the company to meet its commitment to operate door-to-door "to and from any address nationwide" with a double money-back guarantee should the goods not arrive at the mutually agreed time.

High growth over the past five years with turnover up from £2.4m to £12.6m and pre-tax profits of £1m in 1988 (when the City Link and franchisee system-wide turnover was £19.8m) led to serious consideration of a stock market flotation - a move subsequently rejected in favour of acceptance of the £5m offer by Securicor, the security systems, industrial cleaning group which offered £2.2m cash and the remainder in new Securicor shares. Mr Bob Thomas, City Link chief executive and chairman, says while the company has consistently outperformed general market growth, "we will far outstrip previous growth records over the next few years with the new resources at our disposal".

Apart from claiming to have the best franchise system in the Bristol-based company, Interlink, was formed in 1981. Four years later Mr Richard Gabriel, chairman, took Interlink to the USM and in May it expanded into Europe via the launch of a franchise operation in Germany.

While franchising has proved successful for Interlink in the UK where it works primarily with small franchisees, the German operation faced difficulties after only a month during which senior management changes in Germany were followed by warnings of substantial losses on the new operation. This warning culminated in a drop of 85p to 189p in Interlink shares on 29 June - the day before the end of the Company's financial year.

Moving into Germany - a notoriously "difficult" market under the tight control of a group of large transport operators - Interlink sold its franchisees to established large companies who were (unlike the small UK franchisees) not prepared to devote themselves solely to Interlink representation. The plan now is to remove the unsatisfactory franchisees and to start again from scratch - a reorganisation

described as an international courier service for documents, parcels and low weight freight. FRX is "selling" its concept and system to franchisees around the world who will gain access to the FRX system for £300,000 which will bring them an open line to all other companies in the organisation. They will also benefit from what the company says is "the first and only fully integrated courier management EDP system in the world". Called iCMS, the system has been designed to provide "the fastest, most comprehensive, most accurate customer information service of any international courier company anywhere in the world".

This is brave talk indeed when aired in the shadow of the hugely expensive computerised information system developments of the likes of Federal Express and UPS. However, the proof of the FRX system will be in the application and the company says it "the company which at the end of this, its first year, expects to gross around £1.5m.

that is likely to bring substantial losses in the 1989/90 financial year. Although Interlink remains committed to European expansion, it may well find that franchising is not the route to be followed.

In the UK, express parcels franchising continues to gain support. Dyno-Rod millionaire, Jim Zockoll, who started ZIP parcels as a franchising operation in the UK, has rescued the Northampton-based company, Nextday, by taking a majority holding in the ailing company. In spite of early denials that he would convert Nextday to franchising, Mr Zockoll has done just that and a recent series of newspaper advertisements for franchisees has met with a huge response.

While the UK express parcels market has seen a certain amount of fall-out recently - eg, the demise of independent and Northampton-based company, and relaunched by Eagle Trust as Eagle Express which has also since been folded - new companies have also emerged. One such is FRX - yet another express vehicle from the entrepreneurial efforts of its founder Mr Ian Sayer, who has many years experience in the UK and European express markets through his own company, Sayer Transport formed in 1968 and later sold to IPEC. Since that time Sayer has worked with a number of companies in their development of European express parcels networks and services.

Described as an international courier service for documents, parcels and low weight freight, FRX is "selling" its concept and system to franchisees around the world who will gain access to the FRX system for £300,000 which will bring them an open line to all other companies in the organisation. They will also benefit from what the company says is "the first and only fully integrated courier management EDP system in the world". Called iCMS, the system has been designed to provide "the fastest, most comprehensive, most accurate customer information service of any international courier company anywhere in the world".

This is brave talk indeed when aired in the shadow of the hugely expensive computerised information system developments of the likes of Federal Express and UPS. However, the proof of the FRX system will be in the application and the company says it "the company which at the end of this, its first year, expects to gross around £1.5m.

Anne Hunter

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COURIER and EXPRESS SERVICES 8

Phillip Hastings discusses links with eastern Europe

Focus on the Soviet Union

PLANS by TNT to set up a partnership with the Soviet Union's national airline Aeroflot to run international air express delivery services, probably from this autumn, mark a significant acceleration in the general development of courier/express operations between Eastern Europe and the West.

Over the past year or so, for example, both TNT and rival air express organisation DHL have established significant joint venture operations in Hungary - TNT with national airline Malev and various other Hungarian organisations and DHL with state-owned transport company Hungarocamion.

Now, both companies are focusing greater attention on the Soviet Union. While TNT is finalising plans for its new venture with Aeroflot, DHL is this year opening up six new locations in the Soviet Union to bring its total in that country to 13 to cater for an expected future growth in Soviet Union business of something like 70 per cent a year.

In fact, Mr Larry Simpson, DHL's area manager for southern and eastern Europe, claims that air express operations in general will play a central role in the growth of overall trade between eastern Europe and the rest of the

world.

"There is tremendous growth potential in eastern Europe and there is evidence that industries there are responding to the challenges of the new era. In 1988, our inbound-outbound traffic ratio for Eastern Europe was 3.21 but that is now down to around 2.61. We expect to see that longer term trend towards parity continue," he said.

Similar optimism is expressed by TNT. Although the company expects to start its new Russian operations in partnership with Aeroflot, there is a strong likelihood that the relationship will develop into a full joint venture operation within a year of start-up.

Latest TNT thinking on that development initially envisages using Budapest as a transshipment point. The idea would be to feed freight into Budapest from Cologne - the hub point for TNT's overall European air express operations - via a nightly British Aerospace 146-QT jet freighter aircraft operated on behalf of TNT's joint venture Hungarian company, TNT Malev Express. Aeroflot or Malev would then fly the freight to and from Moscow.

"We will try and make the operation into an overnight delivery service for European freight destined for Moscow.

That looks possible at the moment and even at worst we would be able to offer delivery on the second morning after collection in Europe," said Mr Alan Watson, managing director of TNT Express Europe.

"It will be possible to extend the delivery service into other parts of Russia using the large Aeroflot network of internal flights."

TNT is also planning to work with Aeroflot to help develop the airline's ground network structure in Russia. TNT will, for example, be supplying vehicles which will probably bear the logo TNT Aeroflot or something similar.

Although the planned new Russian operation by TNT looks set to be started using Budapest as a transshipment centre, Mr Watson said that longer term the Hungarian centre might not be the best placed point geographically to act as a gateway for eastern bloc air express services in general.

"Berlin, for example, might be better placed for development as such a hub but in fact I am at present not so keen on



After its joint venture with Hungarian airline Malev, TNT is now preparing for a take-off with Aeroflot in the Soviet Union

the idea of establishing any east European hub. At this stage, I would like to see Cologne eventually become our main hub for the whole of Europe, East and West," added Mr Watson.

For the moment, though, Budapest is continuing to develop as the principal gateway for general courier and express freight industry development in eastern

Europe. The factors behind the development include the generally progressive thinking of the Hungarian Government and a concerted move by Hungarian industry and commerce to step up international trade, particularly export business, outside eastern Europe.

First western express company off the mark in that respect was DHL Worldwide

which in mid-1988 set up its joint venture with Hungarocamion.

Operating as DHL Budapest, the joint venture company now employs 22 staff and is expected to generate an annual revenue of \$5m by 1992.

Other parts of the same initiative involved relocating the company's eastern European head office from Frankfurt to Budapest and announcing plans to build a hub operation in the Hungarian centre to act as a distribution point for shipments into and out of eastern Europe as a whole.

Since the initial joint venture moves in Hungary, says DHL, considerable progress has been made in each of the areas covered by the agreement.

Following the relocation of the eastern European head office to Budapest, DHL's computerised Lasernet tracking and tracing system has been implemented in that market.

Meanwhile, negotiations covering the establishment of separate DHL-dedicated hub

premises at Budapest's Ferihegy 1 airport are only now being completed. As a result, DHL now expects to have its own dedicated facilities at the airport on stream during the first quarter of next year.

"We already have daily charter flights linking Budapest with our principal European sorting centre in Brussels, Belgium and Zagreb, Yugoslavia. In August, we plan to add two more direct flights linking that centre with Athens, Greece and Belgrade, Yugoslavia," said Mr Simpson.

In addition to Hungary, DHL also claims to be making substantial progress with development of services throughout eastern Europe where it operates in Russia, Czechoslovakia, Poland, Yugoslavia, Bulgaria, Rumania and East Germany.

Meanwhile, TNT is investing an initial \$50m in its Hungarian joint venture project to spearhead an expected major push into eastern European markets.

That investment, which includes aircraft and handling equipment, covers the setting up of joint venture company TNT Malev Express in conjunction with Malev and other state companies including freight forwarder Masped, import/export agency Technoimpex, and major chicken

processing company Balbona to operate 24-hour delivery air express services between eastern bloc markets and Western Europe.

Looking ahead, TNT plans to develop other eastern bloc air express traffic through Hungary. Mr Don Dick, chief executive of TNT Europe and TNT Skypak, also believes the Hungarian development will open up further opportunities to link up Europe as a whole with other international markets.

"There are definite opportunities for operating through the eastern bloc into the Middle East and across to Asia, although such moves are probably another 12 months away at the moment."

"We could establish links with those markets either using our own aircraft or in the same way we are operating in Hungary, i.e. working with a local airline," he claimed.

Other eastern bloc developments in the pipeline for TNT this year include the likely expansion of Mailfast remail operations in that market through a joint venture agreement with the Hungarian post office.

As with the TNT Malev development, a Mailfast tie-up with the Hungarians would be seen as a stepping stone into the rest of the eastern bloc.

THERE is considerable change under way in the Red Star parcels arm of British Rail turning this traditionally sluggish operation into a competitive and market-oriented force.

Spurred on by the increasing challenges presented from road and air parcel companies, Red Star has seen new investment, new managers with new ideas and a new independence, drawing away from the embedded culture of BR.

"We have to maintain our links with BR and its service network but we are giving Red Star its own identity to reflect the changing market," says Mr Adrian Shooter, managing director of Red Star. "Our biggest USP (unique selling point), is the network of 500 express offices around the UK, which probably having 95 per cent of economic activity in this country within 10 miles and any station. This network is of tremendous benefit to us," adds Mr Shooter.

The transition of Red Star began last October with its formation as an independent, dedicated parcels division within BR.

The division employs some 1,800 people and expects to see turnover rise this year from £55m to around £70m. In October the restructuring was described as preparing for an assault on the European parcels market by the large American operators such as Federal Express and UPS rather than to preclude privatisation.

Either way the move serves a similar purpose in that it makes Red Star more responsive to the market place and better equipped to expand its services in Europe and worldwide. Major elements of Red Star's new independence and image are a higher profile and a greater accountability to customers.

The latest expression of this policy is the appointment of 40 dedicated regional managers who are responsible for overseeing product quality and service standards.

Mr Shooter points out that these new managers have been drawn from several sources. "A number of existing Red Star managers have been reconfirmed in their jobs while others have been recruited from retail and service areas such as the courier business and hotel and catering.

"Total quality management is the objective of all the changes," comments Mr Shooter. "It is all to do with developing a new culture," he adds.

The programme takes in all parts of the operation and will be going to improve both standards and quality. All employees have gone

PROFILE: RED STAR
Streamlined independent



For Red Star, BR's parcels arm, 11,000 trains take the strain

through a two-day training course to highlight the new emphasis on standards and further training is planned. New uniforms have been issued and a new livery is being introduced for road vehicles. Red Star is actively investigating the BS5750 standard as a recognition and audit of quality of service. New simplified instruction manuals have been prepared which Mr Shooter describes as "tremendous tools".

Considerable investment is also being put into making the Parcel Points in stations more "customer friendly". Each Parcel Point is given a budget to choose from a wide range of furniture and accessory kits to lay out their own Parcel Point in an attractive and functional way while using a standard logo and colour scheme. "This delegation of decision making helps bring in the staff at the local front line as part of the new culture," comments Mr Shooter.

In the UK Red Star claims about 13 per cent of the same-day/next-day am market. Its domestic service range has been reviewed and improved with further developments planned. Some 60 per cent of all customers take and pick up parcels at the station while at 180 of 500 railheads served consignments can be picked up or delivered by Red Star. This is done through a spontaneous on-demand special delivery premium service or a regular scheduled pick-up where large and frequent volumes are

customers.

Red Star's European and worldwide services which cover some 30 countries represent about 3 per cent of turnover. Mr Shooter hopes to increase this to around 20 per cent by 1992 especially through using its domestic network to feed the international services.

"We will be able to offer later cut-off times and be more competitive on European services," he says. "Red Star is putting a lot of time into revamping the European network to give guaranteed times. It is a matter of tightening up the services and extending the range of products."

To serve its European services Red Star has opened a hub in Charleroi, Belgium, from where some 3,000 stations are linked in. The hub is operated by the Eurail consortium of which Red Star is a member. Red Star uses other Eurail members to handle consignments in Belgium, the Netherlands and France but has other arrangements in other countries as it feels the level of service offered is not yet adequate.

"We are talking with a number of members about future arrangements," comments Mr Shooter. "There is huge potential, especially with DB in Germany, for example."

The Channel Tunnel will open up considerable opportunities to offer same-day express parcel services to Paris and Brussels and from those destinations into London. "We will be able to offer a faster service and competitive prices with the airlines as we go from city centre to city centre," says Mr Shooter. "We are looking at a whole range of alternatives for night services and looking to get the maximum out of the passenger services."

In another development to further boost its European activities, Red Star has reached a wholesaling arrangement with European Expedite on delivering door-to-door all consignments the airline brings into the UK. These parcels arrive in time to catch early morning trains so generally reach their destinations by midday. Mr Shooter is keen to expand this type of business and has set up a special facility at Heathrow in the Cargo Centre to handle this traffic.

Mr Shooter is optimistic for the future. With Red Star having re-organised, he sees the new culture showing through increasingly in the quality of service and product and in the organisation's competitive edge especially with the benefit of the Channel Tunnel in Europe.

David Robinson

Companies are investing heavily in communications systems
In touch with developments

AN INCREASINGLY important factor in the battle for courier/express parcels business is fast and efficient communication between service operators and their collection/delivery fleets.

The need to combine maximum fleet efficiency with a fast response to customer requests for collections or for information means leading courier companies are investing heavily in communication systems to keep them in touch with drivers on the road.

Included in the range of communication options open to express service operators are direct depot-to-vehicle computer terminal links, much-improved mobile radio equipment and vehicle tracking systems. All are designed to help express companies improve vehicle fleet operational efficiency and security.

A good example of the move towards computerised depot/vehicle communications is provided by Federal Express UK which this year installed computer terminals in 40 of its London-based collection/delivery vehicles which allow proof of delivery information collected through drivers' hand-held trackers to be instantaneously fed into its computerised parcel tracking system.

The units, known as Dads (Digitally Assisted Despatch System), represent the latest enhancement to the Federal Express Cosmos (Customer Operations System Master On-line System) system which handles the physical tracking of each package from point of origin through to final destination using a series of scans at different stages to read bar code labels.

Key features of Cosmos 11B, as the upgraded system is called, are small hand-held units called spertrackers which are used by collection and delivery couriers to scan packages. Previously, drivers have had to wait until they returned to their depot to download information from their trackers into the Asystem.

Now, by using the Dads terminals in their vehicles, they can transmit the information while they are still on the road. Initially, the emphasis has been on collecting and transmitting proof of delivery information but a second phase development now being implemented includes the processing of pick-up details as well.

Meanwhile, other courier

and express companies looking to develop their depot/vehicle communications through the installation of computer terminals and equipment in vehicle cabs are being offered a variety of different packages by outside computer system companies and software houses.

Cambridge-based Spectronics Micro Systems, for example, now offers a number of products and systems in that field. One of the latest, the S320 mobile data communications controller, is a small low-cost intelligent modern designed for use in a vehicle equipped with a conventional mobile radio. It enables the driver to have a two-way communication with a remote host computer over the radio link.

Another system developed by SMS, the S330, is geared particularly to companies operating courier delivery services. Now in use with operators



A courier keys up for instructions on an "in-cab" computer

such as DHL, the system centres on the use of mobile data terminals which can pass printed messages between depot and driver.

That, it is claimed, cuts down on time and eliminates the potential errors of verbal radio communication. A further advantage is that the driver does not have to be in his cab to receive the message, dispensing with unnecessary and time-wasting repetitions. A third SMS system, the S340, additionally includes an alpha numeric keypad to enable drivers to send back information to their base.

Most significant development on the mobile radio front involves the Band Three Radio system now being introduced throughout the United Kingdom.

The consortium behind the project is committed to establishing a national mobile Aradio network covering at least 80 per cent of the population

by 1991 - at present the system covers around 60 per cent and has some 8,000 subscribers.

Band Three is based on the use of the old 405-line television channels, released by the government for commercial application to ease mounting congestion on other radio frequencies.

It is said to offer a host of improvements over traditional two-way radio systems, including better reception, faster connection times and complete privacy for the duration of the user's call.

The last-named feature can be surprisingly important for courier/express service operators - lack of privacy has been a problem with many traditional mobile radio systems, with competitors finding ways of tuning into a particular radio frequency to pick up information which can be commercially-sensitive.

Band Three is also said to provide an average connection time of just six seconds, as opposed to delays of several minutes that can be experienced by users of other mobile radio systems.

Even during peak periods, it is claimed, Band Three users will normally be connected with the receiver within 20 seconds.

Another important difference between Band Three and other mobile communications systems is that with the other systems, someone on the road can only talk to the base station.

With Band Three, users will be able to have a conference call, with people on the road talking to each other as well as with their base, commented a spokesman for the consortium.

The Band Three network also provides a Radiotext facility which allows text to be sent over the network and printed out on a vehicle-fitted termi-

nal.

That means that even if a driver is away from his vehicle, the base or depot can send a written message via the Radiotext service which will be waiting for him on his return. Similarly, the driver can also transmit messages to his office or even to other vehicles in the fleet.

Express companies known to be interested in using the new network include Securicor Express which currently uses a system called Relayfone for both voice and data transmission but plans soon to upgrade to Band Three.

Other alternatives for keeping closer tabs on vehicles while they are out on the road, particularly those involved with the movement of high value goods, include adopting some form of automatic vehicle location system. There are several methods available, all using different means of location.

Latest development in that sphere involves a system called Datatrak, a joint venture involving the Securicor Group and George Wimpey, which uses the principle of radio navigation as the base for vehicle tracking operations.

Main feature of Datatrak is its ability to track live the whereabouts and status of collection/delivery vehicles. That is achieved using a network of low frequency radio transmitters whose signals are received and processed by an in-vehicle locator unit to give very high accuracy wherever the vehicle is located.

Datatrak presents the fleet controller with a computerised moving-map display showing the location of his vehicles. Additional data showing the status of the vehicle can also be displayed, including an emergency alarm facility designed to help direct emergency services to a particular vehicle.

Not surprisingly, the parcels delivery arm of the Securicor Group, Securicor Express, is leading express industry interest in Datatrak. The company is already using the system in London on a test basis to assess the best way of employing it throughout the UK. Initially, the emphasis is on using Datatrak for fleet management purposes but Securicor Express believes it will prove valuable from a security point of view as well.

Phillip Hastings

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COURIER and EXPRESS SERVICES 9

Phillip Hastings discusses BA's express service

Airline finds rewarding niche

HAVING helped pioneer the airline industry's pioneer to the express freight phenomenon with the launch of a door-to-door delivery service called Speedbird Express in 1982, British Airways subsequently struggled to find ways of further developing its role in that market.

Over the past couple of years, though, the carrier finally appears to have discovered a rewarding niche in the express business through the provision of international

lyhold of passenger aircraft while the couriers physically carry the accompanying documentation necessary to satisfy Customs procedures at the destination end.

BA is operating direct on-board courier services to close on 60 centres around the world, with nearly 100 additional points in South America, the Caribbean and the Far East being covered indirectly through hubs such as Miami and Singapore.

This service is geared specifically to wholesale business — we are not interested in the retail trade," said Mr Geoff Bridges, managing director cargo for BA.

We see Speedbird Courier principally serving smaller courier companies, with forwarders on prime traffic routes and major operators like DHL and company on the thinner routes.

Biggest market for Speedbird Courier at present is the United States, where around a dozen cities are served. Included in that operation is the use of the two Concorde flights a day operated by BA between London Heathrow and New York to offer the possibility of same-day deliveries for traffic out of the UK.

BA has also over the past year massively expanded its Speedbird Courier service coverage of Continental Europe and Scandinavia to now include some 20 major cities, ranging from the popular express traffic points of Amsterdam, Brussels, Paris and Frankfurt to less well-served cities such as West Berlin, Istanbul and Moscow.

The pace of actual route

expansion will now begin to slow down although that development will continue. The main thing now will be to try and build in added value packages, for example consignment tracking, said Mr Bridges.

He also believes there may be scope to develop some European services to cater for same-day deliveries by running Speedbird Courier operations on late morning/early afternoon flights to key Continental centres.

Still on Europe, BA has not given up hope of resurrecting something along the lines of its ill-fated Midnight Express operation which was set up to offer overnight wholesale courier/express capacity between London and Brussels, using the belly-hold freight capacity of a passenger fleet B757. That operation folded after only a few months in mid-1988 due to problems with Customs clearance arrangements at the Heathrow end.

On a broader front, Mr Mick Fletcher, BA's marketing manager express services, is also keen to see the airline develop a courier/express transfer operation in London which will boost the development of Speedbird Courier services throughout the BA route network, as opposed to just in and out of the UK.

In other words, we want to become a network seller, selling services from any point in the BA network, to any point in the network," he says.

Second string to the BA express bow is its original Speedbird Express service which offers door-to-door delivery of parcels and freight to nearly 40 countries worldwide.

The majority of traffic handled is either in or out of the UK, although BA is constantly looking to try and develop more movements between different points in its network. Speedbird Express is particularly designed for use by domestic express companies and freight forwarders which do not have the capacity to run their own international door-to-door express operations.

Meanwhile, a continuing upsurge in express business

A business upsurge has prompted BA to open another module at Heathrow

through London has prompted BA to open this month an additional module at its Heathrow express handling centre which is attached to the carrier's import building.

The express handling unit is able to accept consignments up to 45 minutes before flight departure time and have around freight available for Customs clearance in the same length of time. Creation of additional space will effectively treble the size of the facility and cater for expected demand for the next couple of years.

"Beyond that, we will be looking to have a separate express handling building, probably located at the back of the import shed. We have just set up a committee to look into that project," added Mr Bridges.

UNITED PARCEL SERVICE

Big Brown hoists its colours

THE largest small package carrier in the United States and through that business, the largest in the world — United Parcel Service (UPS) was until recently a relatively small player in the general United Kingdom and European international express/courier markets.

Over the past year or so, though, a number of significant company acquisitions and service developments, combined with a major advertising campaign in both the national and trade media, have substantially expanded operations and pushed UPS much more into the limelight.

Further helping to increase the general UK public awareness of the Big Brown, as the company is known in the US, was the recent introduction in London of vehicles in the highly distinctive UPS livery of dark brown with a golden logo and lettering.

Founded in 1907 and now based in Greenwich, Connecticut, UPS last year delivered some 2.7bn parcels and documents and generated revenues of more than \$11bn.

To support that business, the company employs some 220,000 people worldwide, owns 114 jet aircraft and leases a further 250, has 104,000 package delivery vehicles, tractors and trailers, and 1,750 operating facilities.

The first move into Europe came in 1976 when UPS established a domestic operation in West Germany.

However, the next major European development move came in 1985 when the company announced the setting up of service partnerships in the UK, the Netherlands, Belgium, Luxembourg and France.

Even then, though, the traditionally conservative UPS management took cautiously in Europe and it is only over the last year or so that expansion has really begun to accelerate. Industry observers believe that part of the reason for that caution involved the fact that the company was engaged in discussions with rival courier/express organisation DHL with a view to a takeover or merger, although UPS has never publicly confirmed that any such talks took place.

Whatever was or was not discussed, UPS apparently decided last year that the time for talking had finished and



Flying high in Europe: over the past year UPS has begun to accelerate expansion plans

that it had to start making some major moves to expand its international operations, both in Europe and the Far East.

The first indication of a more aggressive approach in Europe came last autumn when the company revealed a reorganisation of its international management, setting up a new line of reporting rather than operating through the established main management structure.

Prior to the changes, European activities had been headed by a regional manager for the market, Mr Larry Long, based near Frankfurt in West Germany. He is now vice-president for Europe, reporting to Mr Don Layden, senior vice-president worldwide, who in turn reports directly to Mr John Rogers, UPS chairman.

Coupled with the restructuring of its European management, UPS also began significantly strengthening its intra-European aircraft fleet operations centred on its Continental hub at Cologne.

The latter is linked directly with the US via daily UPS DCS freighter flights to and from Newark.

Then, at the beginning of this year, UPS announced the acquisition of some half a dozen European parcel delivery companies previously established by freight forwarders to act as service partners for the US organisation.

Included among them was UK service partner Atlasair and its parent company Arkstar.

About the same time, UPS also announced the acquisition of well-known UK-based courier organisation IML, whose worldwide network included a strong presence in markets such as the Middle East Gulf and Nigeria.

"One of the major attractions of IML for us was its worldwide network. Another big attraction was the company's expertise in the international air courier business, particularly its use of on-board couriers which is something we had previously only been involved with to a limited extent," said Mr Richard Roth, UPS Europe business development director.

"We had drawn up our plans for international development through to 1992 based on doing most of it ourselves. The acquisition of IML enables us to speed up that development considerably and put us well ahead of schedule."

Other important UK developments over the past year have included linking operations

into the highly sophisticated International Shipments Processing Systems developed by UPS for use worldwide in electronically processing and tracking its traffic.

UPS is investing some \$1.4bn in a technology upgrade programme for the five years 1986-91 — latest move in that sphere involved the start in June on the construction of a new \$20m global computer and telecommunications centre at Mahwah, New Jersey.

The three-storey, 400,000 sq ft facility is intended to form the cornerstone of the parcel company's worldwide computer network in 1991.

From the UK, UPS now offers an international expedited document delivery service to some 160 countries around the world and express movement of dutiable packages to around 40 countries.

However, asked about the UK domestic express parcels market, where the name of UPS is mentioned in connection with nearly every significant operator which may or may not be up for sale, Mr Roth was more cautious.

"We still have a lot of work to do on the international side and we are likely to be concentrating heavily on that sector over the next couple of years. That said, if a good domestic company acquisition opportunity came up, then I am sure we would consider it."

Phillip Hastings

TRACKING SYSTEMS

Customers kept in the know

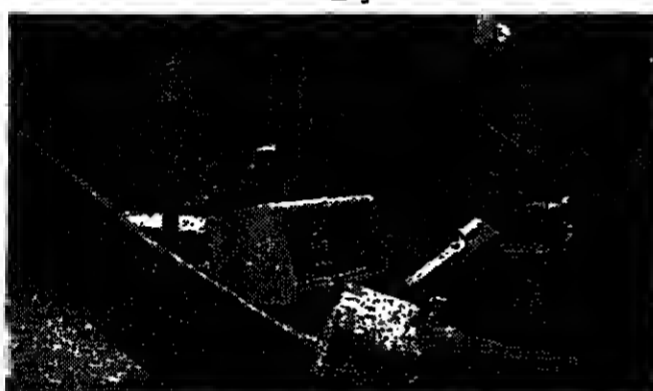
FAST door-to-door movement of goods is in itself no longer sufficient to fully meet the exacting requirements of modern-day distribution and general logistics management.

Courier and express service customers now increasingly demand not only a rapid, reliable flow of goods but also accurate information on where their consignments are in at any one time. In addition, they want to be able to use the distribution process to gather management information which will help them run their overall business activities. Such considerations apply particularly where express service operators are involved with so-called Just In Time distribution systems. JIT demands information about delivery requirements and operations be passed quickly between all the parties.

To meet those needs, leading international express freight service operators TNT, DHL, Federal Express and UPS are all investing millions of pounds in the development of computerised cargo processing, tracking and general information technology systems. Similar investment, albeit on a slightly smaller scale, is being made by most medium-size express delivery companies in the UK including Securicor Express, Parcels and Red Star.

The more advanced systems are now able to track shipments at various points in their door-to-door movement such as the pickup from consignor, arrival at the delivery service company's local depot, arrival/dispatch at the main parcels sorting hub, arrival at the local depot nearest to premises of the consignee and then the final delivery itself.

At the same time, the level of investment and service sophistication required to meet present-day distribution demands means that express service operators and their major customers are increasingly looking to work even more closely together. In an increasing number of cases, service operators are now installing their own computer terminals and staff on customers' premises to further improve communication. Some of the latest trends in the sphere of express industry information technology were outlined by Sir Peter Abeles, group managing director of fast-growing express and general distribution organisation TNT Logistics and Distribution Management conference in Brighton last month.



Express operators are increasingly using bar coding to identify parcels handled in their system. Left: Sir Peter Abeles, group managing director of TNT Worldwide.

As computerisation and automation of data collection grew, said Sir Peter, TNT was the first to introduce EDI (Electronic Data Interchange). That enabled the company's European mainframe, for example, to exchange information with any of its clients' mainframes, allowing them to track their own consignments through the TNT transportation system.

"EDI also allows staff in each of our contract depots to talk electronically to their clients about delivery requirements, production runs and sales promotional information," said Sir Peter.

"Perhaps more importantly, it allows us to communicate constantly, to feed back information on collection and deliveries made, transit times, costs and an array of information important for the customer in order to run his business. The permutations are endless and in an organisation as widespread as ours, allow for worldwide data communications, tracking and EDI."

In developing sophisticated parcel tracking systems, though, express operators have to take into account a number of potential problem areas. There is, for example, the need to find a system which enables them to record every consignment or item quickly. The "point of data capture" still tends to vary — it can be at the pick-up from the consignor's premises, at the collection depot or even at the main sorting hub. Obviously, the earlier the data is fed into the system the more complete the tracking procedure.

For operators picking up relatively small numbers of documents and packages from each customer it is comparatively easy to get the collection driver to collate and input the necessary information via some sort of handheld device or a unit in his vehicle.

However, express operators collecting large volumes of parcels tend to find that processing each item at the point of collection takes up too much time and as a result they prefer to establish the point of data capture at the collection depot.

Another factor increasingly having to be taken into account by express companies developing parcel tracking systems is the need to cover international, particularly European, activities as well as just UK domestic.

Increasingly express operators are using bar coding to identify parcels being handled through their systems. While bar coding does not necessarily solve all the problems of data collection in parcel distribution, within well-defined systems it can work effectively.

Parcels carrier Securicor Express, for example, is this year pressing ahead with the implementation of a bar-coded UK parcel processing project, SPARCS (Securicor Parcels Computer System). The 28m-10m system is being progressively phased in over the next five years as part of a general customer service improvement programme.

Hayes in Middlesex on line at the beginning of this year for trial purposes. The company's 120 UK branches are due to be put on line over the next year.

"Specially-designed bar-coded labels with unique identification will be scanned at the Securicor receiving depot. All the relevant information about that parcel will then be transmitted to a computer located at Securicor headquarters in Sutton for analysis and instant inquiry should a customer have a query," said a Securicor Express spokesman.

"Scanning the label on the parcel as it leaves the receiving depot for local delivery completes the procedure, allowing speedy proof of delivery."

In addition to PODs (proof of delivery) and parcel tracking facilities, the SPARCS system will be used to automatically provide quotations, contracts, invoices and schedules. Approvals and authorisations will be given via terminals and processed electronically. Large volume customers will be able to link directly into SPARCS using EDI to transmit and to receive information.

The latest feature highlights the way that service operators are increasingly having to develop methods of computerised communication and tracking which are compatible with general EDI systems.

So-called closed loop information technology systems which can be used in connection with one particular company's activities appear to have only a limited future.

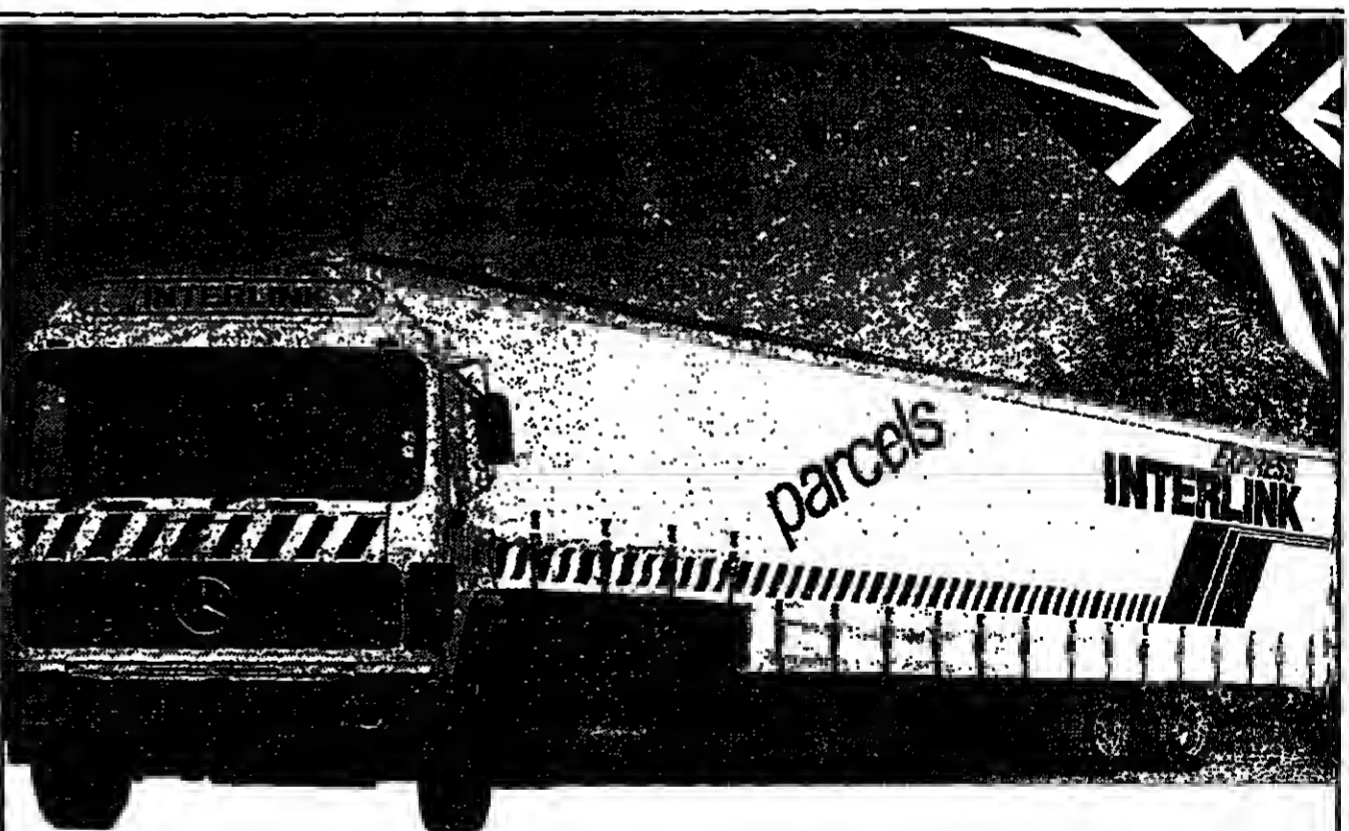
Coupled with the development of information technology systems is an increasing tendency for major international express companies such as TNT, Federal Express and DHL to position both systems equipment and staff actually on site at the premises of major customers.

Domestic express delivery companies too are following suit. Lyx Express Delivery Network, for example, offers customers access to its central information technology system via a facility called the Lyx Manager which provides them with computer terminals and software for their own offices. That equipment allows customers to fully automate the documenting of multi-package consignments, so improving despatch management procedures, saving time on documentation and reducing misrouting.

"This scenario is very threatening for the smaller companies, except that they can hope to be taken over by one of the big four, rather than simply put out of business. The alternative will be to survive as local or niche operators."

"They also can't compete on the marketing side — one manager of a medium-sized company told me recently that the advertising budget of one of the big four companies is bigger than his total turnover," Mr Waller adds.

"I think we will see an



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Our outstanding growth in the UK has been largely due to the near 100% reliability we achieve on our next day delivery services at very competitive prices.

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Dedicated management Our experienced senior and middle management are dedicated to a policy of constantly evaluating and

applying new technology to improve and expand our services and handling efficiency thereby increasing capacity and keeping prices down and profits up.

Mainland Europe — the first steps On May 2nd this year we launched Interlink Express Paket Dienst in West Germany. Initially it is operating a domestic next day delivery service. A planned UK link will be introduced early in 1990.

Ready for 1992 Over the next 2½ years, the organisation will be expanding throughout the European Community. Our intention is to become one of Europe's leading international express parcels organisations with a turnover well in excess of £100m.

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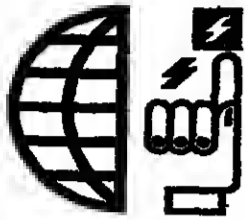
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FINANCIAL TIMES SURVEY



The international telecommunications industry presents a picture of relentless change in the coming

decade as it continues to be one of the driving forces behind the growing integration of the world economy, reports Terry Dodsworth, Industrial Editor.

Pace of change quickens

IT IS hard to recall that ten years or so ago the development of the world telecommunications industry seemed reasonably predictable.

At that time, the revolution in digital systems was only just beginning. Fibre optic cables were a new technological phenomenon. Mobile commercial telephony was in its infancy. And the big service monopolies, from American Telephone and Telegraph of the US, to NTT in Japan, and British Telecom in Europe, reigned serenely over their closely-guarded empires.

During the last decade, however, the industry has been subjected to a wave of change that has radically altered both its structure and the products on which it is based. It has lost its traditional, slow-moving character.

The stable relationships that had existed for decades between operating companies and their chief suppliers have been swept away. Many public telephone groups have been thrust into a much more competitive environment, and as technology has shortened the investment cycle, new products have been injected into the industry at breakneck speed. All this has occurred in a relatively benign environment.

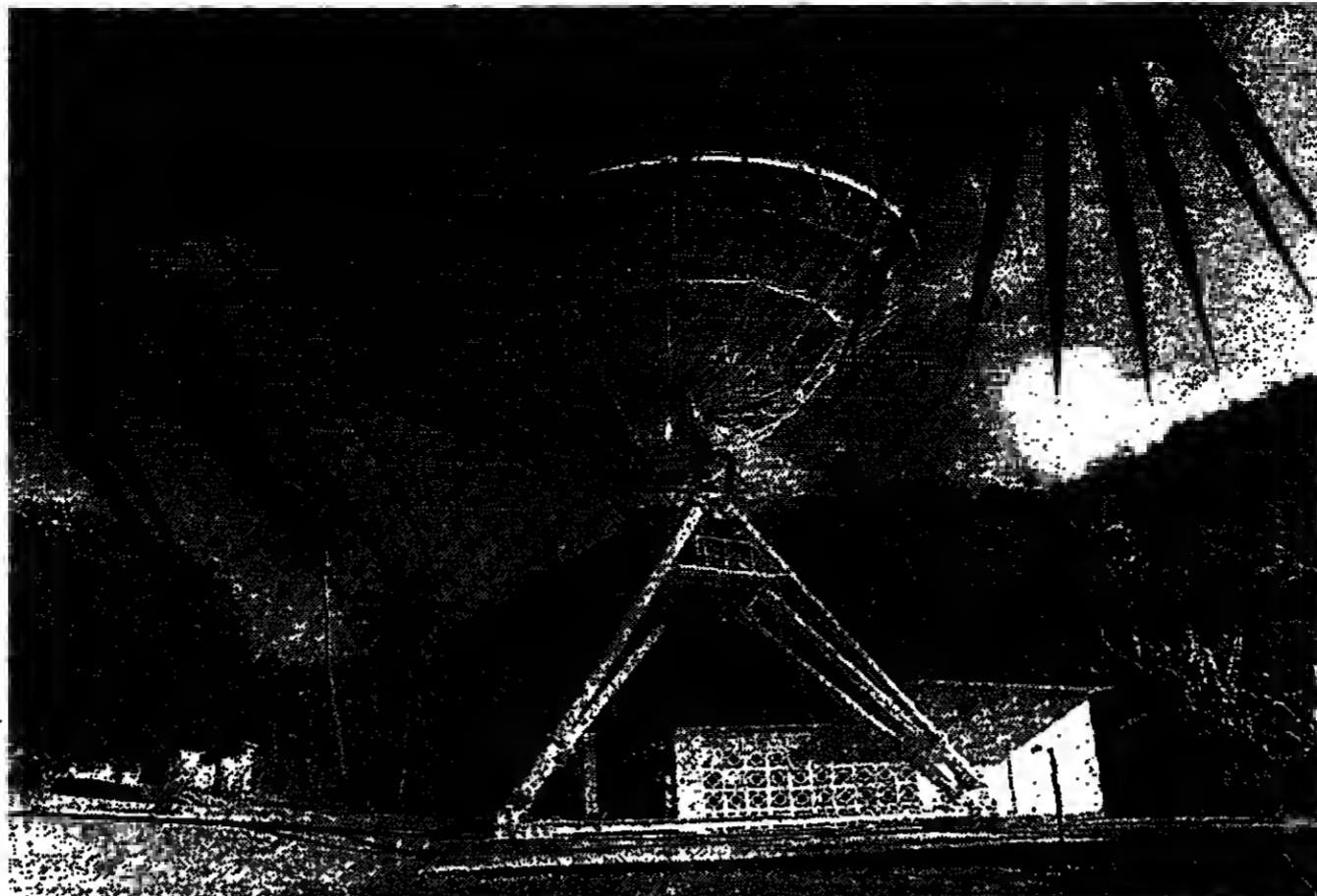
Telecommunications cannot boast the sort of growth rates that have been familiar in the computer industry over the last two decades. But the industry has enjoyed a period of strong activity on both the equipment and the service side.

Spending on telecommunications products has grown at between seven and eight per cent a year during the late 1980s, jumping from \$83bn worldwide in 1986 to an estimated \$115bn in 1990, according to figures from the Telecommunications Research Centre, the Sussex-based market research group.

Telephone operating groups have also enjoyed a golden period of expansion during the long economic growth cycle which began in 1981-82, with revenues from telephone calls rising at around 10 per cent a year in many countries.

In the mobile telephone sector, the industry has even produced a new growth area which measures up to the more exciting parts of computing: several companies in this field are doubling the scope of their business every year.

Market forecasts suggest that the telecommunications sector overall may lose some of its buoyancy in the first half of the next decade, with growth



Island "earth station" in the Indian Ocean: Cable and Wireless equipment on Mahé in the Seychelles. Picture by Glyn Genn.

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■ Editorial production: Michael Wiltshire, Phillip Halliday.
 □ Graphics: Bob Hutchison.

INTERNATIONAL

Telecommunications

falling off to just under four per cent a year.

By then, many of the developed countries will have reached a plateau in their installation of digital switches and fibre optic networks, putting increased pressure on suppliers as volume levels off and prices erode.

But in the late 1990s, growth is expected to swing up again to present day levels as the installation of complex devices that mix data and voice on the standard telephone system gathers pace.

It is hard to predict what will happen to call volume in this period, since it tends to be

sensitive to the general level of economic activity. Yet it seems certain that, in a broad sense, the large public operating companies will in many countries be exposed increasingly to the sort of competitive challenge that has already hit the equipment suppliers.

Market deregulation is

steadily expanding the scope of these companies to compete against each other, or for new start-up competitors to emerge. And as this liberalisation occurs it is opening up new service opportunities that give operating companies the chance to supplement their present revenues; value added

services, data transmission, video conferencing and the like all generate increased use of the basic telephone network.

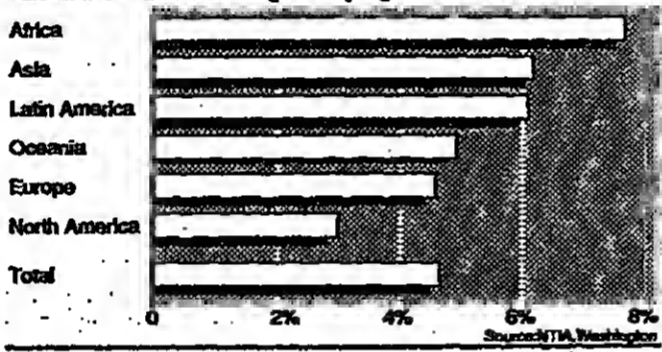
Within this picture of expansion and rapid change over the next decade, however, the way in which the financial cards will fall is much less predictable than in the past.

One of the uncertainties is the geographical pattern of growth in telecommunications. At present, the industry is totally dominated by the developed countries. The US Department of Commerce calculates, for example, that the main markets of the US, Soviet

Continued on page 2

World market

Telecommunications market growth by region 1985-1990



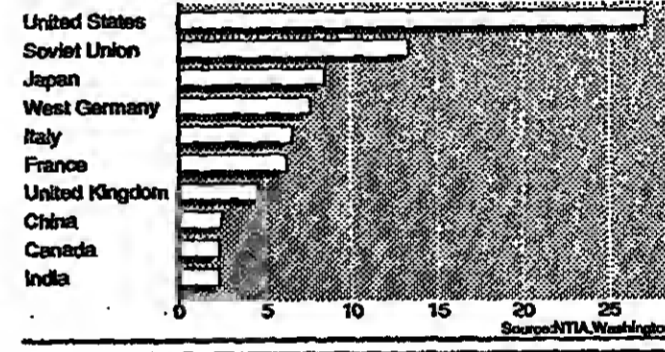
World's top 10 telecommunications equipment manufacturers

Rank	Company	Headquarters	1988 Sales \$ billion
1	AT&T Technologies	US	10.2
2	Alcatel NC*	Belgium	8.0
3	Siemens**	West Germany	5.4
4	NEC	Japan	4.5
5	Northern Telecom	Canada	4.4
6	IBM	US	3.3
7	Motorola	US	3.1
8	Ericsson	Sweden	3.1
9	Fujitsu	Japan	2.1
10	Philips	Netherlands	2.0

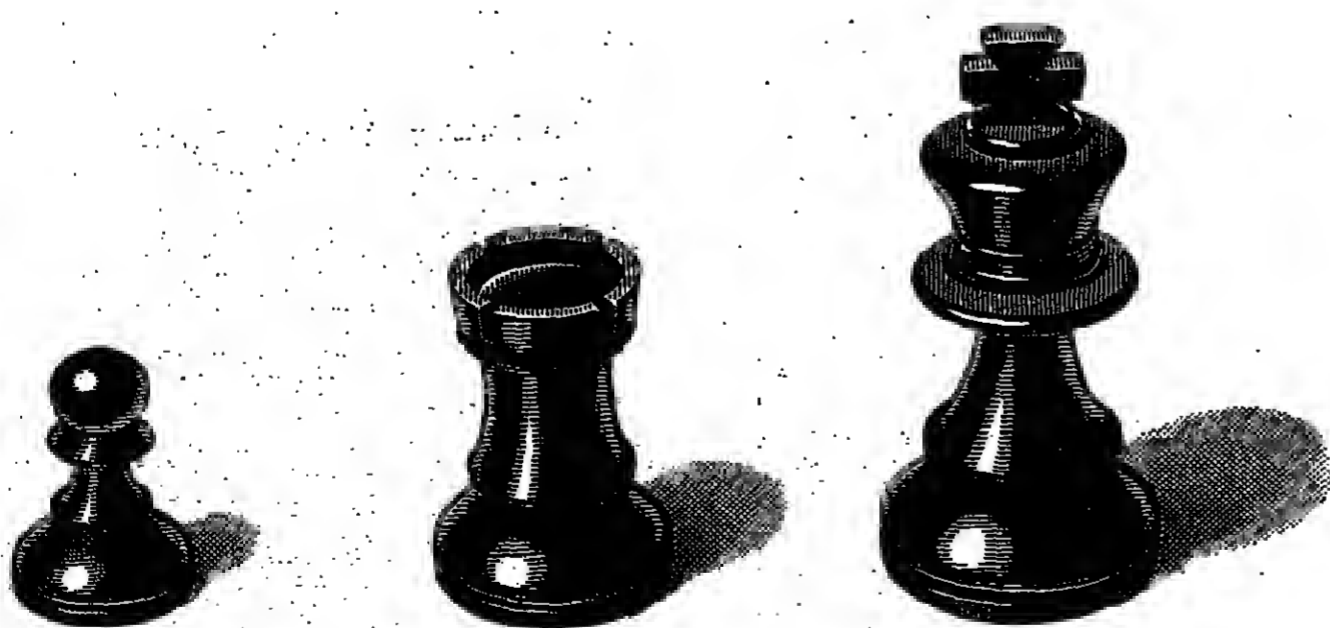
*Combined equipment sales of Alcatel and ITT; **incl. GTE's 1988 sales; excludes US switching and CPE. Source: Arthur D.Little.

World forecast

Telecommunications equipment sales forecast for 1990 (\$ million)



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- That's why there is only one world telephone company...Cable and Wireless.

INTERNATIONAL TELECOMMUNICATIONS-2

Terry Dodsworth looks at changes in the industry in the 1980s

Quest for more consolidation

MR PHILIPPE GLUNTZ, chief executive of Alcatel, Europe's largest telecommunications group, believes that most of the crucial steps in the present round of restructuring among the world's leading telephone switch manufacturers have been completed.

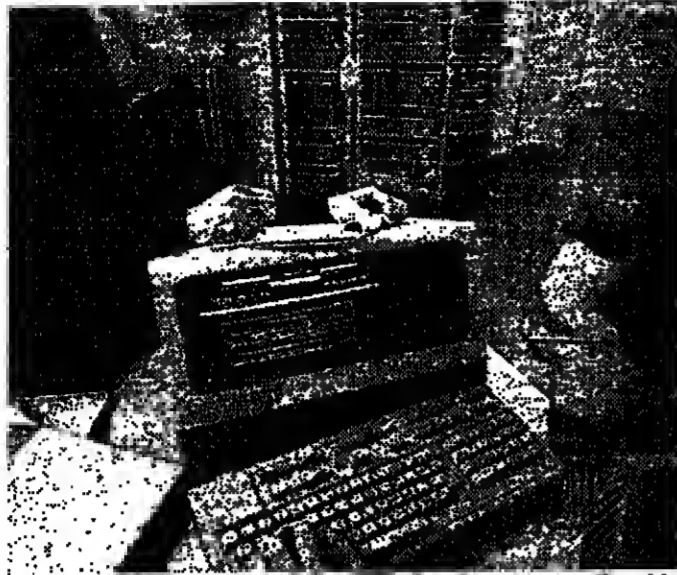
There is likely to be a period of consolidation, he argues, in which the predatory companies absorb their acquisitions and the industry settles into its new shape, but at the same time, he adds, manufacturers are likely to switch their attention to the need for rationalisation in other areas of telecommunications equipment production.

The main action throughout the 1980s has been unquestionably directed at re-organisation among the producers of public telephone exchange equipment. These changes have been driven by a combination of factors, some of them common to restructuring in other maturing, high technology industries.

They include the increasing cost of research and development, which companies are trying to offset across larger markets; the rapid pace of technological change, which adds to the cost of investment in research and new capital equipment; the reduction in production manpower as telephone systems become increasingly dependent on software; and the growth of competition in the wake of market deregulation.

These forces have had a particularly heavy impact in Europe, where telecommunications manufacturing has been traditionally organised along national lines. Among the changes are:

- The reorganisation in France which started when the Thomson group was forced out of the industry by the Government, with the bulk of activity taken over by Alcatel, the subsidiary of Compagnie Générale d'Electricité.
- Alcatel's purchase of the European business of ITT, the US conglomerate, in a deal which propelled the French group into the leading position in the European industry, with heavy interests in West Germany and Spain as well as France.
- Further reorganisation in France when Compagnie Générale des Constructions Télé-



The main action throughout the 1980s has been unquestionably directed at re-organisation among producers of public telephone exchange equipment. Above: engineers in Italy testing an Alcatel digital exchange.

communications interests of GEC and Plessey in a joint venture a year ago. This has been followed by moves to eliminate the Plessey share through a joint acquisition of the Plessey stake by GEC and Siemens of West Germany. Over the longer term, the UK and West German companies are expected to come together in an integrated group.

- AT&T's entry into Europe, an area from which it had been excluded historically through American anti-trust action that had split the US industry between AT&T in the home market, and ITT overseas. AT&T took a 50 per cent stake in APT, a jointly-held company with Philips of the Netherlands, a holding which it has subsequently increased.
- AT&T's deal this year in Italy, establishing a partnership agreement with Italtel. This is designed to bring AT&T's dominant supplier position to bear on the development of a new switch that will help to modernise the backward Italian telephone industry.
- The reorganisation of the British supply industry about 10 years ago in preparation for the new generation of digital switches. This has helped the Canadian group forge ahead with its international ambitions, leading to significant export orders to Japan and its purchase of a 28 per cent stake in STC in the UK.
- The subsequent UK move to bring in competition to GEC and Plessey, the remaining suppliers, in the shape of Ericsson, the Swedish manufacturer.
- The merger of the tele-

independent US public exchange producer. This will help AT&T maintain its leading position in the US, but it will continue to come under attack from overseas companies eyeing the US with relish. Stromberg-Carlson of Florida, for example, is now owned by GPT, the UK group, which is anxious to upgrade its switches from small rural exchanges to large urban equipment.

Several of these deals have also led to initiatives outside the field of public switching, which probably accounts for only a little more than a quarter of total equipment expenditure in the industry.

AT&T, for example, has invested in the manufacture of multiplexer equipment in western Europe as part of the deal with Philips. Alcatel has similarly established a position in US ancillary products in the US through the ITT purchase; and Siemens, which failed to take over GTE's switch production, acquired some of the US group's other telecommunications equipment operations.

STC has similarly moved to expand its position in non-switch areas following the moves which severed its connections with ITT. In cables, for example, it has expanded rapidly to take advantage of its strong international position in the production of underwater fibre optic cabling. In this area, it has recently brought a plant in Oregon in the US, which has won its first contract for a cable under the Pacific.

Some restructuring has also occurred in the office telephone exchange sector. This business is subject to similar economic pressures to those in the public exchange industry, with the increasing investment in research into digital systems, and the expansion of software content at the expense of hardware.

Cross-frontier deals in office switches include Siemens' recent agreement to acquire Rolm, the Californian-based producer, from IBM, the US computer company, as part of its drive into the US telephone market.

Siemens has also purchased Norton, the UK distributor of office exchanges; and a further attempt at reorganisation of the UK industry has been launched with BT's acquisition of Mitel of Canada, although this agreement has still to

deliver on its promises. Elsewhere in Europe, Alcatel has brought together its own range of office exchanges with that of ITT to give itself of more complete range of equipment aimed at the full range of small and large companies.

Three areas stand out as primary targets for further reorganisation. Europe, for a start, is likely to provide plenty of scope as the plans for completion of the open internal market in 1992 gather pace. Many of the forthcoming deals are likely to be joint ventures rather than takeovers because of the way shareholding structures frequently make it difficult to push through clean acquisitions in continental countries. For example, STC recently reached such an agreement with SAf of France in a transaction which will involve technology and marketing links in the telecommunications field.

Second, is the issue of Japanese companies. The deregulation of the Japanese market, with the consequent ending of NTT's position as the monopoly telephone operating company, has undermined the traditional structure of the Japanese industry.

The big supplier companies, NEC, Fujitsu and Hitachi, have lost some of their close relationship with both NTT and Europe through acquisitions, which they have seen additional markets opening up domestically among the new operating companies, and they have been pushing increasingly into export markets. Over time, they are expected to solidify their expansion into the US and Europe through acquisitions and joint ventures.

Finally, the explosive growth of mobile telecommunications will inevitably be accompanied by aggressive jockeying for position among the scores of companies moving into this field.

Motorola of the US has established a strong position in Europe, buying into the Scandinavian market with the acquisition of Storno in Denmark. European suppliers are also linking up in an elaborate network of cross-frontier alliances.

As the mobile market continues to grow and equipment suppliers are expected to continue around the world.

Public telecommunications operators

Six key questions

THE COSY monopolistic environment in which the world's public telecommunications operators (PTOs) have grown up is under threat from the twin forces of liberalisation and changing technology.

This process, in turn, is encouraging the PTOs to expand beyond their traditional frontiers. Doubts, however, remain both over their willingness and ability to attack new markets with entrepreneurial zeal.

Although the world-wide trend to deregulate telecommunications markets is the most important feature changing the landscape, it is not without exceptions. Since the Socialists returned to power last year, France has started to back-track on freeing up telecommu-

nications markets. France has also emerged as the key player within the European Community opposing liberalisation. It is organising other nations such as Italy, Spain and Belgium in an attempt to try and dilute the European Commission's plans in this area.

Even those countries committed to liberalisation have adopted markedly different approaches, which themselves are subject to constant revision.

The result is that the world now has four main models for structuring telecommunications markets in addition to the traditional monopoly model. The three most radical models are those of the US, the UK and Japan.

A lesser radical and newer approach is being promoted by

the European Commission. The first test case of this fourth model is West Germany, whose reform became law on July 1st.

Attitudes on six key questions differentiate the four models:

- Should PTOs be privatised?
- Should competitors be allowed in the basic network?
- Should public ownership be written into the constitution?
- Should competitors be allowed to use the basic network?
- Should competitors be allowed to provide a uniform service across the country?
- Even the three liberal nations, however, have gone slightly different ways. The UK

Report by Hugo Dixon

only allows one competitor to British Telecom - Mercury Communications. This is on the theory that BT would find it easier to squash a multitude of small competitors than a single large one. The whole monopoly policy is up for review at the end of next year with the expectation that more competitors will be allowed.

The US has allowed a free-for-all in long-distance.

Leading world telecommunications markets

US\$ million in 1988

Country	1988	1989
United States	24,009.0	23,800.0
USSR	8,400.0	7,580.0
Japan	7,580.0	6,588.0
West Germany	4,482.0	4,918.0
France	3,918.0	4,140.0
Italy	3,146.0	1,885.0
United Kingdom	1,485.0	1,440.0
Canada	1,440.0	1,422.0
China	1,403.0	1,300.0
South Korea	1,300.0	1,280.0
Spain	1,280.0	1,200.0
Switzerland	1,200.0	1,100.0
India	1,100.0	1,000.0
Australia	984.0	972.0
South Africa	872.0	851.0
Brazil	845.9	786.0
Mexico	786.0	692.0
Sweden	692.0	640.8
Austria	640.8	620.0
Taiwan	620.0	580.0
Indonesia	580.0	544.7
Argentina	544.7	521.4
Saudi Arabia	498.0	480.0
Netherlands	480.0	478.4
Hong Kong	478.4	426.2
Norway	426.2	313.2
Belgium	313.2	302.1
Colombia	302.1	296.6
East Germany	296.6	288.5
Venezuela	288.5	269.7
Singapore	269.7	258.1
Finland	258.1	241.1
Pakistan	241.1	234.0
Turkey	234.0	227.5
Denmark	227.5	211.8
New Zealand	211.8	210.4
Iran	210.4	197.5
Poland	197.5	178.8
Bangladesh	178.8	161.4
Egypt	161.4	144.7
Hungary	144.7	121.4
Israel	121.4	108.4
Iraq	108.4	102.4
Yugoslavia	102.4	102.4
Czechoslovakia	102.4	
Portugal		
Algeria		
Syria		
United Arab Emirates		

Source: TRC

Telecommunications market forecasts

Values in \$bn	1988	1989	1993	CAGR 1989-93
Single Line Phone	1.8	1.8	1.3	3.0%
Data Comm Equipment	8.3	7.4	11.5	11.7%
Switching Equipment	6.6	6.5	6.9	1.5%
Call Processing Equipment	1.1	1.3	1.9	10%
Facsimile Machines	2.3	3.4	6.7	18.5%
Video Conferencing	0.1	0.2	2.7	26.7%
Public Equipment	6.3	6.6	9.0	8.1%
Public Services	124.8	127.9	144.6	3.1%
Cellular Radio	3.8	4.7	8.7	16.6%
TOTAL	152.6	158.5	191.3	4.6%

*Compound annual growth rate. Source: Dataquest, 1989

The pace of change quickens

Continued from page 1

Union, Europe and Canada secure a strong position in total market demand for telecommunications equipment at present.

Yet there is enormous capacity for expansion in developing countries if they can only harness sufficient resources. The disparities between the advanced and poorer countries are underscored by the installed base of telephone lines.

The US had around 121m lines in 1986, against 118m in the European Community and 46m in Japan. But India had only 5m to serve its vast population and Brazil just 7m - less than South Korea.

New initiatives to tackle these shortages and under-investment are now being developed by the World Bank and the International Telecommunications Union, but it is by no means clear what impact these will have.

Similarly, Eastern Europe and the Soviet Union have the potential to emerge over the next decade as much bigger telecommunications markets than they have been in the past.

The USSR, for example, has only about 30m lines at present, a ratio of just under 11 telephones for every 100 people.

Hungary has only 7 lines for every 100, and East Germany under 10 per 100, figures which compare to 43 per 100 people in West Germany, or 64 in Sweden, believed to be the highest level of penetration in the world.

In the years of the cold war, collaboration between the East and Western Europe has been limited, and to some extent was intensified by the tough moves on technology transfer initiated by the Reagan Administration in the US. But several Western countries have won supply contracts to Communist countries recently, and the reform movement that is spreading throughout this region is expected to lead both to more equipment exchanges and an increase in telephone traffic.

Another uncertainty hanging over the next few years concerns the regulatory environment. The idea of injecting more competition into the industry, initiated in the US in the 1970s, is now sweeping through the developed world and beginning to affect developing countries as well.

The pace of this change, and the precise way in which it will affect different areas remains to be seen, however. At the moment, deregulation is still in a highly experimental stage. Indeed, liberalisation is more properly seen as a process of

re-regulation, as Governments try to develop new rule books that allow competition to emerge at the telephone operating company level without undermining the principle of universal service.

The problem here is that it has only been possible in the past to ensure universal access to telephones by subsidising the cost of line installation to remote areas with the revenues from more profitable businesses.

But if the big operating companies are to be asked to accept universal service responsibility, to what extent should competitors be allowed to come in and compete in the more profitable areas of the business? And if their profits are under attack in the profitable segments of their business, to what degree should they be allowed to diversify into other products?

Governments have thus been faced with a precarious balancing act in trying to push the industry into a more competitive environment - and sometimes the results have looked bizarre. For example, both the UK and the US have slipped into substantial balance of trade deficits in their equipment manufacturing industries as a result of deregulation - at a time when their Governments have been claiming that liberalisation would make industry more competitive.

In the US, this has led to particularly heavy criticism of the deregulation process, since the seven regional Bell operating companies, which had the capital and the know-how to enter the production area in competition with AT&T, were deliberately banned from this area.

On the other hand, the British and US industries have benefited from invisible earnings from telephone services as the operating companies have become more competitive internationally.

Even on the pure operating side, there are criticisms: many sceptics claim that services have not improved under liberalisation, and some claim they have gone backwards.

In Europe, these issues are particularly complex, since every country in the region has developed its own procedures for its domestic telecommunications industry.

The European Commission has now taken the lead in trying to bring some order into this Tower of Babel, based on the twin precepts of breaking down competitive barriers to trade, while building a homogeneous structure in Europe that will make it easier to conduct business in the region.

Deregulation, however, will not be the only factor determining the shape of the industry over the next few years. Just as important is the technology for running the tele-

communications system.

The impact of technological development, and how this meshes with the regulatory environment to create change, can be seen quite clearly in the development of mobile telephones in the last few years.

When the car telephone industry was first launched in the early 1980s, scarcely anyone outside the industry took any notice; and many insiders totally misjudged the impression mobile phones would make. Yet today, this part of the industry is attracting extraordinary enthusiasm, from operating companies and manufacturers alike, as highlighted on page 6 of this survey.

Which companies are likely to be the winners from this spate of change?

On the production side, the industry has seen the emergence of a ten large-scale, increasingly international groups.

These are fairly evenly spread across the developed world, according to US Commerce Department figures, with three from the US (AT&T, IBM and Motorola), four from Europe (Alcatel, Siemens, Ericsson and Philips), two from Japan (NEC and Fujitsu) and one from Canada (Northern Telecom).

This structure, however, could easily change - indeed, it is evolving at this moment with the Siemens attempt to link up with GPT in the UK, and the West German company's equally ambitious effort to take over Rolm in the US.

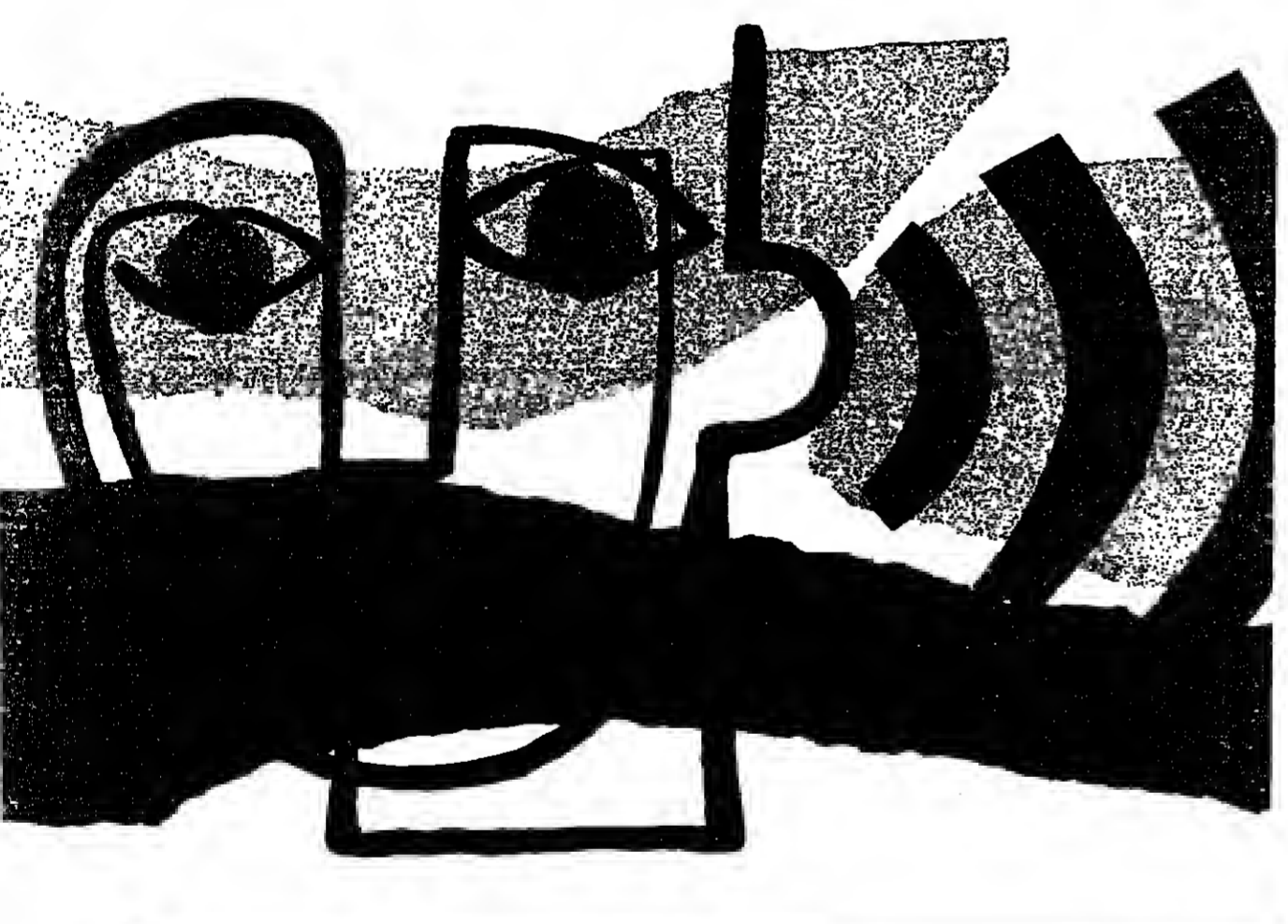
At the same time, these companies are going to be exposed to new competition from up-and-coming groups in the mobile telephone field, to say nothing of other manufacturers who are breaking into sophisticated new areas of transmission and network control.

It will be harder to rationalise and restructure the big public service operating companies: their monopoly over basic, fixed-line voice traffic is being maintained in many countries; and they are typically State-controlled, which puts them beyond the reach of takeover or mergers.

Nevertheless, these companies are likely to see their position eroded over time. Competition is being allowed in the fast-growing areas of data manipulation and transmission services are being liberalised.

All in all, the industry presents a picture of relentless change over the next decade.

Ten years ago, few would have forecast such a period of explosive activity. But it now seems indisputable that telecommunications will continue to be one of the driving forces behind the growing integration of the world economy.



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STC TELECOMMUNICATIONS



Airborne communications: a business traveller using a British Telecom Skyphone on a British Airways 747.

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INTERNATIONAL TELECOMMUNICATIONS-3

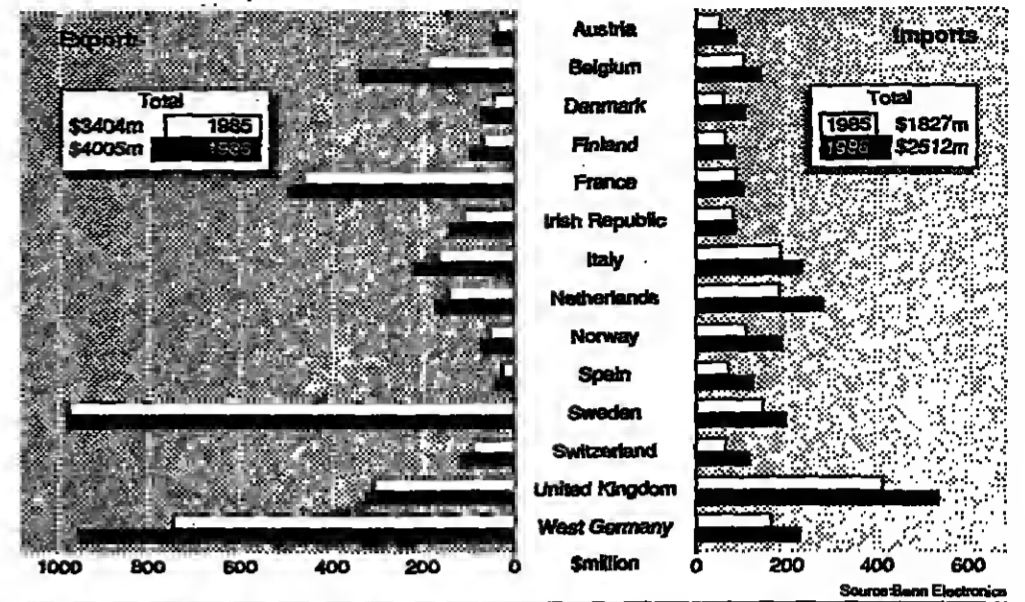
Terry Dodsworth examines the big increase in telecommunications trading

Japan moves ahead rapidly in world market



COLOUR VIDEO PHONE: while video phones now transmit black and white still photos, the Panasonic unit pictured, left, on display at an advanced technology exhibition in Tokyo, transmits movement in colour. The phone is still several years away from being ready to market. Also pictured, centre, is a robotised production line for electronic equipment at Osaka.

European telecommunications equipment



WELL INTO the post-war period, trade in telecommunications products followed the trends that had been set in the days when the American and European industrial systems dominated the world.

Most of the big manufacturing nations were virtually self-sufficient in mainstream equipment such as public telephone exchanges and cables. Many of them were big exporters to the developing world or their former colonies. Interchange of goods between the leading manufacturing countries was not significant enough to raise fears of industrial damage in the recipient countries.

As in many other high technology products, however, this neat balance of power has been deeply upset by the rapid emergence of Japan as one of the world's leading producers.

Japanese companies have quickly become the top exporters of telecommunications products, moving into markets all over the world. In the space of a decade or so, the Japanese industry has established an exceptionally strong position in neighbouring countries in the Pacific; and from there they have swept aggressively into the US and progressively into Europe.

The trade figures speak for themselves in the US, where a small surplus of \$276m on telecommunications products back in 1982 was reversed into a hefty deficit of \$2.5bn in 1987 — enough to come close to cancelling out the hefty \$2.8bn surplus on computer trade. Some \$2.2bn of this deficit was with Japan, followed by \$444m with

South Korea and Taiwan are also achieving big export successes

South Korea. Conversely, figures published by the EC show a substantial US surplus with most European countries, amounting to a total of ECU406m in 1988.

Indeed, the statistics indicate that European manufacturers are now being squeezed between the US industry and the Japanese. Since 1984, the region's deficit with Japan has soared from ECU481m to ECU 1.2bn; and overall, the EC's surplus in telecommunications equipment has slumped sharply from ECU1.2bn in 1986 to ECU0.1bn last year.

The strongest exporters in Europe are West Germany, with overseas sales in 1987 of \$1.1bn, according to Telecommunications Research Centre, the market research group. Sweden, the home base for Ericsson, the world's most internationally-minded telecommunications equipment manufacturer, is the next largest in the region with exports of \$851m.

But the big surprises in exporting performance in recent years have been South Korea and Taiwan. Each of these two South East Asian countries achieved higher exports in 1987 than the UK, with sales of \$460m and \$388m respectively.

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The Motorola case followed a similar tussle in Japan involving Cable and Wireless, the UK telephone operating group, two years or so earlier. At issue then was C&W's participation in a planned new international telephone company that was to compete with KDD, the established Japanese monopoly.

The bid from the C&W consortium was almost superceded by a rival offer from a group of all-Japanese companies, and a compromise which allowed

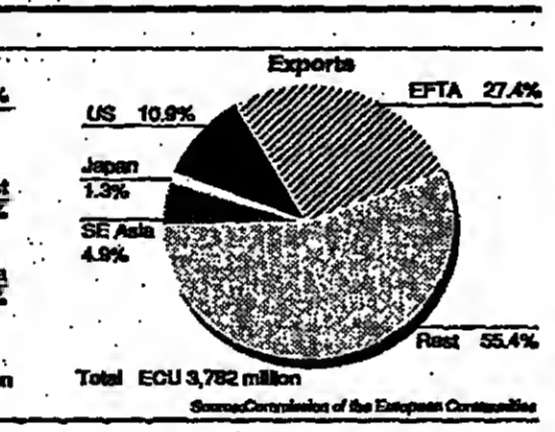
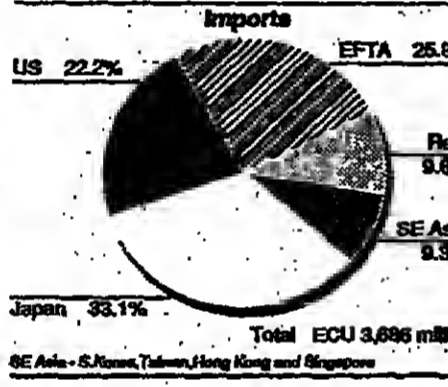
both groups to set up new services was only reached after top level political intervention by Mrs Margaret Thatcher and the then President Reagan.

It is significant that both these incidents should have involved the US and Britain. These two countries have been in the forefront of the moves to liberalise telecommunications trade by opening up their domestic markets to more competition. The consequent influx of imports has made producers in both countries — along with their respective Governments — much more aggressive about exports and winning access to overseas markets.

Similar conflicts have also been simmering between the US and the European Community over the last three years. The disagreements link into

planning at misuse by the other. Nevertheless, the arguments have reflected significant disagreements over market access which arise from increasing attempts to trade across frontiers. The US has been deeply concerned by the problems that American Telephone and Telegraph, the leading American manufacturing company and long-distance operator, has faced in its attempts to form production alliances in Western Europe.

EC equipment trade, 1988

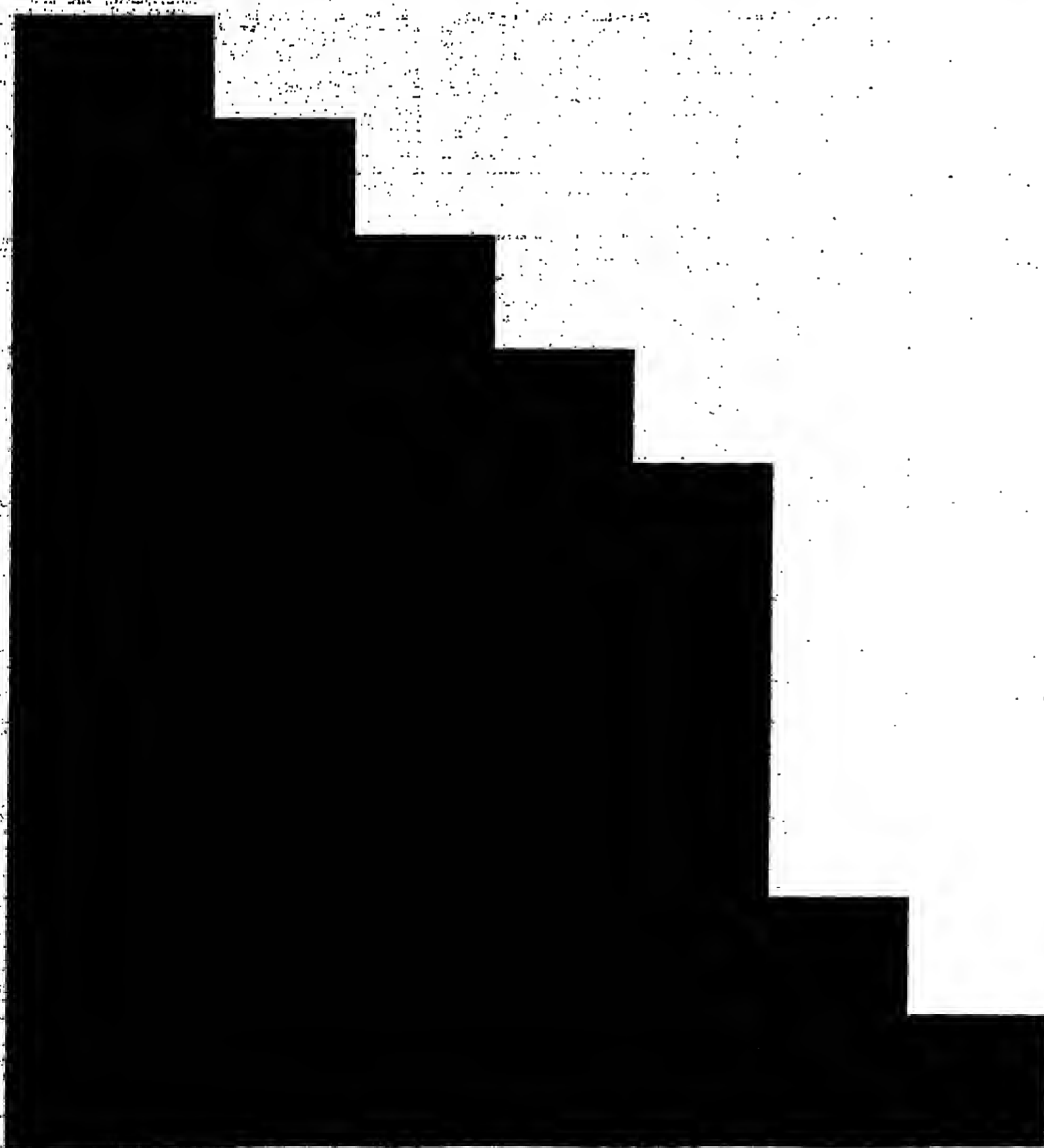
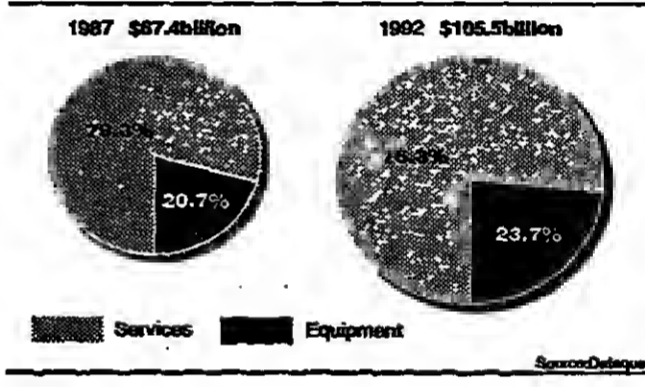


the more general trade arguments that have gone on periodically across the Atlantic — telecommunications trade has been a useful drum to beat when either side has been concerned.

Japanese exporters are moving aggressively into Europe and the US

the more general trade arguments that have gone on periodically across the Atlantic — telecommunications trade has been a useful drum to beat when either side has been concerned.

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INTERNATIONAL TELECOMMUNICATIONS-4

Integrated services digital networks

Global standard delay

THE ABILITY to use your existing office telephone line to make a telephone call and send a facsimile or data message simultaneously may seem an attractive proposition. At least, the telephone companies in the US, Europe and Japan are hard at work trying to persuade customers that such services are a solution for many business problems.

But as the telephone companies and the equipment manufacturers continue to pour money into developments of these services - over \$2bn so far - there is growing concern that they have been developed for the convenience of the telephone companies rather than the needs of business users.

The acronym for such services, ISDN (integrated ser-

In the US, companies are successfully using ISDN on a local basis

ices digital network), has been widely and jokingly referred to as "integrated services I don't need" and, more recently, services "I still don't need." Unfortunately for the telephone companies, in practice that appears to be the case.

The most significant reason seems to be that ISDN services are only available in isolated geographical pockets, even in the US where all the regional Bell Operating companies have heavily committed themselves to giving their business customers ISDN. That is because

ISDN signals can only be transmitted using the newer digital telephone exchanges, not the older analogue ones.

Although most of the world's telephone companies are investing heavily in digital technology, it will be some time - if ever - before true end-to-end digital services are available.

That problem has been recognised by NTT, the local telephone operating company in Japan. To try and overcome the problem of a slow take-up of ISDN services, NTT has decided to accelerate its programme for supplying ISDN services nationwide.

NTT began offering ISDN services in Tokyo, Osaka and Nagoya in April 1988, and by April 1989 had only 1,000 customers. Now NTT is planning to introduce a nationwide service by April 1990, at least two years ahead of the initial target date.

As a result of the accelerated roll-out, NTT is predicting it will have 100,000 customers for its ISDN services by the end of 1990.

An additional factor hampering the take-up has been delays in setting the standards to which services will operate - a full set of standards will not be ready until 1992 at the earliest.

That has hindered the implementation of both national and

international services, as users have been reluctant to invest in equipment which could be obsolete in a few years time.

In spite of standards delays, telephone operators in the UK, West Germany, France and Italy are looking at plans to link their national ISDN networks together internationally. British Telecom in the UK, for example, plans to have an international telephone exchange handling ISDN calls in service by the first half of 1990.

McDonald's claims the first building in the US dedicated to ISDN

In other countries such as the US, companies that are using ISDN most successfully are doing so on a local basis, by linking local sites together. McDonald's, the US hamburger group has linked six local sites together using ISDN in the Chicago area, including the Hamburger University - the McDonald's training school at the Oak Brook, Illinois. Showpiece of the network is the McDonald's headquarters building, which claims to be the first building in the US to be completely dedicated to using ISDN.

One of the main advantages of using the ISDN format pinpointed by McDonald's is more to do with computer wiring than the transmission services marketed by the telephone companies.

With ISDN both the phone and the computer terminal are plugged into the building's internal telephone network, and so can be unplugged and moved with their owner - considerably cheaper than having to rewire the computer terminal every time someone changes desk.

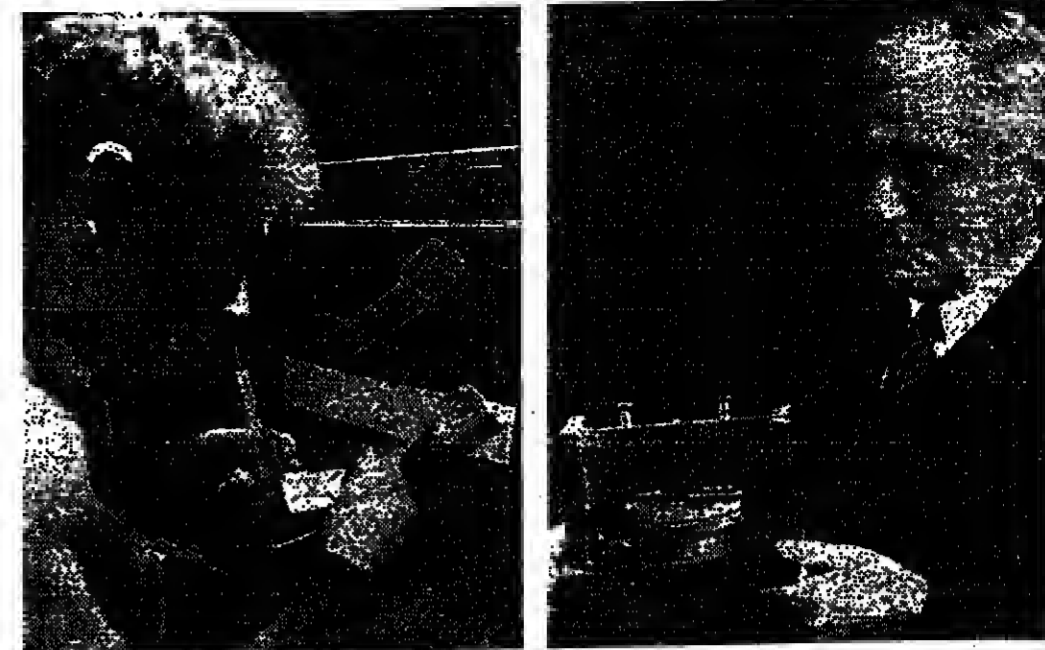
However, many onlookers believe the McDonald's experience will be a relatively isolated one, because there is a growing trend for companies to wire up their personal computers with local area networks, obviating the need to use the telephone network. Because suppliers of local area networks are not constrained by the standards problem facing the telephone companies, and are selling their wares in a highly competitive environment, many of their products have sophisticated features which the telephone companies will be unable to match on ISDN.

Because the telecommunications companies have been slow in setting the standards, they have been outstripped by political as well as technical developments. In particular the growing forces of liberalisation in the telecommunications industry worldwide - with the two main forces of the US and the UK leading the way - have enabled large national and multi-national companies to set up their own private telephone networks, by-passing the telephone operating company. As a result, the telephone companies are moving down market and targeting the smaller businesses for their ISDN services.

In addition, as ISDN services allow only small amounts of data to be transmitted down the telephone lines, companies with large data requirements are turning to other methods of transmitting their computer information, such as high capacity dedicated lines. Telephone companies, particularly in the US, Japan and the UK are bundling together ISDN lines to give much higher transmission speeds to encourage large data users to use ISDN.

In spite of the initial slow take up, however, most analysts are confident that ISDN services will take off. Technology research organisation, Dataquest, predicts that worldwide it will take until 1993 before 100,000 lines of ISDN are in use. But by 1997 there will be 600,000 lines installed.

Whatever the interest now being shown by business customers in ISDN service, the telephone companies are unlikely to drop their plans for the service. One of the main reasons for that is that they can provide them by putting advanced electronics on the end of existing cables - they do not have to dig up all the cables in the ground to offer the services. With between 60 and 70 per cent of the telephone network operators' assets installed underground, they will be promoting their ISDN services for some time to come.



TELEPHONES PAST AND PRESENT: an engineer at Martlesham research laboratories in Suffolk, uses three-dimensional computer-aided design to create a new-style handset. In contrast, (right), Dr Thomas A. Watson, is pictured in 1875, holding a replica of the first telephone made by him for Alexander Graham Bell in June, 1875

Della Bradshaw

Optical fibre multiplexers

Less cable, more capacity

UP TO five years ago, the focus for telecommunications companies - both operating companies and equipment manufacturers - was on telephone exchanges. For most telephone operating companies the exchange was the single largest item of expenditure.

But the economics are changing, largely due to developments in optical fibres. Because the cost of optical fibre cable is falling it can be used in local networks as well as the main backbone networks. And because it provides a much greater capacity than its copper counterpart, telephone companies no longer have to site their exchanges near their customers - they can connect them via optical fibres to exchanges many miles away and still have the capacity to provide sophisticated services.

But one other development, combined with optical fibres, is also changing the face of the traditional telephone network. Developments in micro-electronics have produced a range of optical fibre multiplexers, which squeeze a number of telephone calls down a single telephone cable. Combining the huge bandwidth of the fibre with the ability of the multiplexer to use one fibre for a number of calls, the telephone companies are now realising they can by-pass small local telephone exchanges.

That network architecture is particularly appropriate in areas of sparse population, such as parts of North America and Australia, where there is a considerable distance between towns and cities.

This technology marriage is initially being used by telephone companies to bring a range of services to their top business customers although

this combination of multiplexer and optical fibre could eventually curtail the market for local telephone exchanges.

In the UK, for example, British Telecom (BT) is installing a service called Fas (flexible access system) which combines optical fibres, multiplexers and software controlled telephone exchanges. This combination of optical fibre cabling, multiplexers and specialised telephone exchanges (or cross connect switches) enables BT and its peers to give specialised leased lines services - dedicated links between two pre-

Multiplexers are changing the face of the telephone network

defined buildings. As the exchanges are controlled by their software, which can be re-programmed as often as the customers' demands change, the lines can be used for a range of different services.

They can be changed on a daily, weekly or monthly basis. During the day, for example, the lines could be used for ordinary telephone calls, while at night they could be converted into the communications links for surveillance cameras. Several lines could be squeezed together to give a videoconferencing link.

BT has installations in the City of London, and expects to have 650 customers using the optical fibre services by the end of this year. It is also installing a service in London's Docklands this year. And it has already announced a £200m extension programme to introduce the service to other

important business centres, including Birmingham, Manchester and Edinburgh.

By the mid 1990s about 2.5m of BT's exchange lines - about 10 per cent of the total - will be using optical fibre rather than copper for cabling. BT believes that by that time the Fas system will also be so widespread that companies will be using the leased line optical fibres as the backbone over which to run their private telecommunications networks.

In the US the telephone companies are selling Fas customers the equipment and software so that they can re-programme the distribution of the lines themselves. In the UK, however, BT is carrying out the adaptations from its own network management centre.

BT is not alone in the recent drive to bring optical fibre to the doors of its biggest customers. The idea of flexible access systems was conceived in the US. AT&T introduced such a system in 1976, but based on copper cabling rather than the more modern optical fibre.

AT&T is still one of the world's leading manufacturers of Fas type systems, and as well as selling equipment to the Baby Bell telephone companies in the US, it has also made inroads in Europe with its technology. By next year France Telecom will be operating a leased line Fas system using AT&T technology.

Two Scandinavian companies, Ericsson and Nokia, manufacture similar systems and Ericsson is installing a leased line Fas system for the Swedish telephone company Televerket. In the UK, STC and the joint venture company GPT (GEC and Plessey Telecommunications) have supplied the Fas system to BT. West Ger-

man manufacturer Siemens is also selling the STC system, and is installing it for the Dutch telephone company.

Systematic installation of optical fibre in the high volume long distance telephone network has been going on in the US, Japan and throughout western Europe since the beginning of the 1980s. But this has been accelerated in countries such as the US and the UK by the introduction of competition in the supply of telephone services.

In the UK, for example, the introduction of an all-fibre core

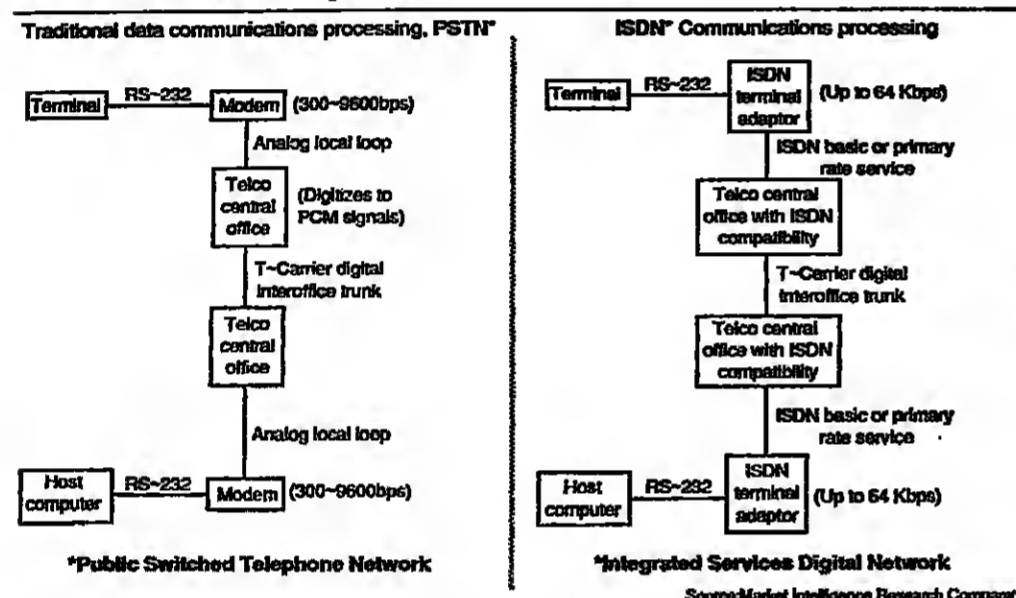
Lines can be changed on a daily, weekly or monthly basis

and local network by Mercury Communications, has forced BT to emulate its competitor in the more rapid introduction of fibre in its network, in order to retain its high chip customers. Although the telephone companies are targeting big businesses for Fas services, they could soon be on offer to smaller companies as well, particularly in the US.

In offices which have a number of tenants, Fas systems could be used by the telephone companies as a way of giving a rapid service to new customers. If an office that houses a firm of solicitors today is taken over by, say, a stockbroker firm tomorrow, the telephone company could quickly reform the telephone lines from its control centre to make sure the new customers get the service they want.

Della Bradshaw

Architectures compared



*Public Switched Telephone Network

*Integrated Services Digital Network

Source: Market Intelligence Research Company

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Telesis: Progress, Intelligently Planned.

PACIFIC TELESIS International

Questions for public operators

Continued from Page 2 traffic. However, local traffic continues to be a monopoly of the "Baby Bells".

In Japan, there are two competitors to the traditional international operator, KDD. There are also about 40 competitors to NTT on domestic traffic. These have proved extremely effective at winning market share on long-distance routes between Japan's leading cities - Tokyo, Osaka and Nagoya - partly because they do not have to offer a nationwide service, allowing them to cherry pick.

Debate in Japan now centres on whether NTT should be split up into several regional companies in much the same way as AT&T was in the early 1980s. It is unlikely this approach will be adopted in Europe because of the relatively small size of its individual markets. However, if one looks at the European Community as a single entity, it is possible to argue that it already has a regional structure.

Should there be competition on alternative networks, particularly mobile communications?

The US approach of licensing two cellular operators for each area - the traditional PTO and a private competitor - looks like becoming the norm in the much of the developed world.

However, the UK is going significantly further than this, by deciding to license two or three operators in addition to its existing operators, Cellnet and Vodafone. As mobile communications become more established elsewhere and governments see the vast profits being made through them, decisions to inject more competition on these lines cannot be ruled out.

Should private companies be allowed to resell capacity on lines they have leased from the PTOs?

Permitting resale can encourage a new class of private operators to emerge, as the US found earlier this decade. The UK has recently decided to follow suit.

In Continental Europe, how-

ever, there are worries that allowing resale of capacity could undermine the basic network monopolies. Germany has therefore decided to stop private companies selling space on their leased lines for voice traffic, though it is permitting resale of capacity for basic data transmission.

The European Commission is taking an even more conservative line. Nations will be permitted to maintain monopolies on basic data transmission until 1993 to allow their PTOs to adjust the tariffs on their packet-switch networks.

What method should there be for controlling the PTOs' prices?

The UK has pioneered the concept of price caps, under which a basket of BT's main prices must fall by 4.5 per cent in real terms each year. The idea of this approach is that it gives the PTO an incentive to make productivity improvements because it can pass on to its shareholders any gains in excess of 4.5 per cent.

The US now looks like adopting this approach for regulating AT&T's prices, and there is interest in using a similar technique for the Bundespost.

However, the more traditional method of protecting the consumer by making sure a PTO does not make excessive profits will be retained for the Baby Bells.

How should value-added or enhanced services be regulated?

Here the essential question is how to ensure that private companies can compete fairly with the PTOs, given that the latter control the networks. The traditional US attitude has been to require the Baby Bells to offer enhanced services from separate subsidiaries to ensure fair play. However, regulatory authorities have come to the conclusion that this requirement is restricting the growth of enhanced services, and a new concept called Open Network Architecture is therefore being adopted.

The European Commission has its own version of this, called Open Network Provi-

sion. It remains to be seen whether these approaches are effective in promoting competition.

This world-wide trend to liberalisation is prompting the PTOs to expand beyond their home markets. The most aggressive in this process have been the US PTOs and BT, which stunned financial markets earlier this year by paying \$1.5bn for 22 per cent of McCaw, the US cellular group. Even the Bundespost, which until recently had a reputation for being the staidest of Europe's PTOs, has decided to open up five offices abroad to spot business opportunities and market its services to big corporations.

However, entrepreneurialism

remains foreign to most PTOs and there are doubts about whether they have the ability to manage far-flung operations with different cultures.

The world's PTOs also still seem bound together by a club mentality. They do not wish to offend their counterparts in other countries with which they are used to dealing on a gentlemanly basis.

In Europe, for example, it is only by PTOs competing head-on with each other that international phone prices are likely to fall. But ask BT whether it is willing to lease lines across Europe to compete directly with France Telecom, Sip and the Bundespost, and you will get a very guarded response.

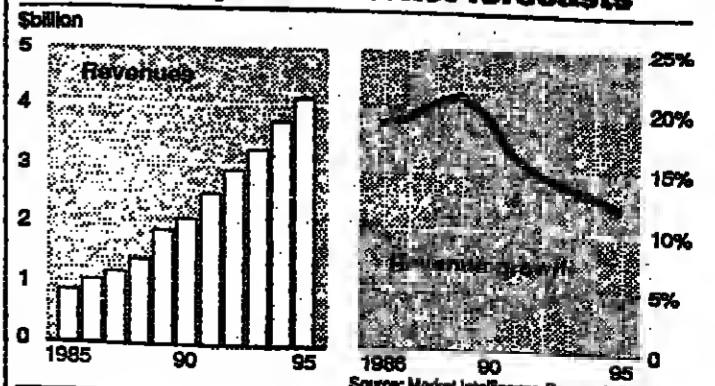
World trade rises

Continued from Page 3 demanding more freedom for companies to set up international services. But despite these continuing rows, telecommunications trade now seems to be set on a steadily rising curve.

Indeed, one way of looking at the conflicts is that they are a demonstration of the growing strength of international trade. Companies are complaining because they are facing competition in what have been protected markets up to now; other businesses are exporting with a new-found vigour.

This point is made in a recent US Department of Commerce publication, NTIA Telecom 2000, which said: "Government over-estimated the ability of US-based firms (including AT&T) to compete - and the pace with which foreign barriers to US entry would be reversed."

World multiplexer market forecasts

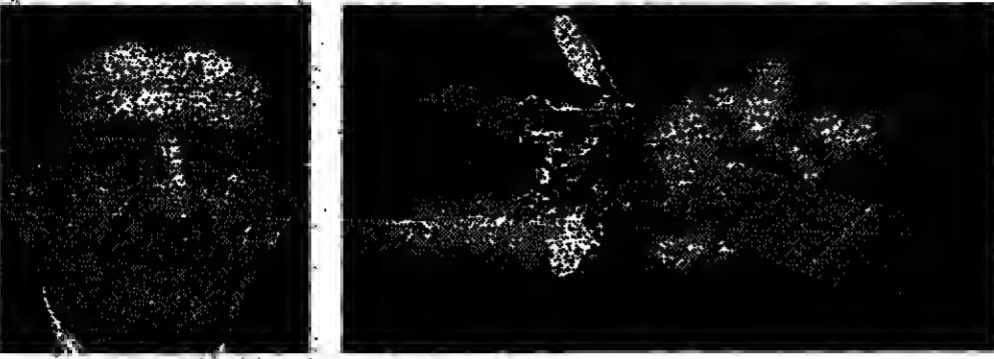


Source: Market Intelligence Research Company

INTERNATIONAL TELECOMMUNICATIONS-5

Adrian Morant on the importance of the satellite

Message from the sky



Andrea Carvo, head of Eutelsat, operates communications satellites such as Eutelsat II (right)

ANY REFERENCE to satellites brings television to mind. The promotional activities of the companies competing with each other, and terrestrial broadcasts, to bring TV into living rooms makes it easy to overlook the importance of satellites as a telecommunications medium.

Satellites in geostationary orbit have become a vital element in communications for the carriage of voice, data, video and TV traffic around the world.

Remaining "stationary" at an altitude of 22,000 miles they are ideal where long distances or inhospitable terrain must be crossed. Often they provide communications with places where it would be uneconomic (or even impossible) to use cables or other means of connection.

On "thin" routes such as in the many islands of Indonesia there is no real alternative. Satellite ground stations, even in remote areas, bring communications with the capital, with other communities and with the rest of the world.

areas to ever-increasing cities is to be avoided in those countries with large populations," he said.

In addition, satellite ground stations with small aperture (diameter) dishes installed on the office roof or in the car park are being used increasingly to provide a business with a direct high capacity communications link.

Frequently the required capacity on such a service can be assigned to meet requirements that can vary on a day-by-day basis. For example, a multi-national could book capacity so as to operate a videoconferencing link between sites on opposite sides of the globe.

"The aim is to produce a low cost videoconferencing product for the desktop user," explained Mr Conchman. "One that will talk to anyone just about anywhere."

A new international standard for the codec (coder/decoder) necessary for this videoconferencing will pave the way for an international dial-up video network as flexible and viable as today's telephone system. But even when that arrives, and the traffic uses terrestrial cables, there will still be many uses for satellites.

A further satellite service is British Telecom's Skyphone. It will provide air travellers with the ability to make telephone calls from aircraft using the Inmarsat (International Maritime Satellite Organisation) system.

An individual can be resolved satisfactorily, it will not be possible to offer a ground-to-air service. In the meantime, BIT is investigating the provision of a ground-to-air messaging service. This might take the form of telex and/or a type of radio paging. This latter could use small LCD displays in the aircraft cabin which could show a short message of the form "A NUMBER CALL 441 234 5678."

The message request would be telephoned to a UK operator in much the same way that a message is sent in the UK to a paging company for onward transmission to a message pager.

The Government has granted licences for specialised satellite services which will allow the transmission of information in the form of one-way data, voice and TV signals to any number of receiving stations within the UK via any suitable communications satellite.

Satellites in geostationary orbit have become a vital element in communications

most business messages are now handled digitally somewhere on their route and could be delivered electronically if their recipients had a suitable receiver.

Personal computers or TV sets with the addition of a cheap adaptor or "set-top-box" will serve as receivers for the signals which will be sent, alongside the TV programmes, via the BSB direct broadcast satellite.

In practice, messages will be sent via the telephone network to the transmission computer centre (TCC) where all the messages are stored, encrypted and coded. The message traffic is then sent to the satellite ground station for beaming up to the satellite which will retransmit the messages in unused time intervals of broadcasting so that they can be received on the ground.

It plans to launch three services. These will be analogous to the telegram, tele-facsimile and answer-phone and will use public-key encryption (see below) to ensure that the message is only available to the correct recipient.

The projected charges being such that DBSS's long-term goal is to compete with the mail. To use the service the sender pays the cost of the transmission but the recipient has to install the receiver. Where the same message is to be sent to a number of destinations, it will be encrypted once with a message key. Then the message key is sent to each recipient individually using public key cryptography.

In public key encryption two different keys are needed: one for encipherment and the other for decipherment. Even when one has the former, it is not possible to use it to decrypt a message.

To send an encrypted message, one looks up in a freely accessible directory, akin to a telephone directory, and uses it to generate the ciphertext. The user, being the only one with the correct key, will be the only one able to read that message.

Where the same message is to be sent to a number of destinations, it will be encrypted once with a message key. Then the message key is sent to each recipient individually using public key cryptography. This system could thus be an ideal way of sending the same information, such as stock market prices or even price list updates, to a number of users as DBSS's tariff will be especially advantageous for multiple destinations.

Hugo Dixon on the re-education of the telephone

Return of intelligence

WHEN telecommunications networks began in the last century, they were intelligent. At the heart of them sat human operators, whose job it was to help route calls from one destination to another.

If Mrs Jones wanted to speak to Dr Brown, but Dr Brown was not at his surgery, Miss Smith, the operator, would tell Mrs Jones what time to call back. Alternatively, she would route the call through to Dr Brown's home, telling Mrs Jones: "After 4 pm, Dr Brown is always at home," or something of a similar nature.

This kind of service is not available on today's phone networks. As the volume of phone traffic has expanded, it is no longer sensible to have human operators processing all except for a tiny percentage of calls. Even if it were possible to employ enough to cope with the volume, they would not be able to keep track of what everybody in the community was doing.

The trend has been to automate phone traffic. In the process networks have become dumb. Instead of connecting people who wish to speak to each other, they connect destinations. If the person is not there, that is just too bad.

More recently there has been a move to reintroduce intelligence into telecommunications networks by means of a new architecture for the systems and sophisticated software. The concept is called "intelligent networks".

Intelligent networks will provide a host of new features, when they are finally implemented - which will probably take at least a decade even in industrialised countries. The new features fall into four main categories.

First, alternative routing. Instead of routing a call to a fixed destination, intelligent networks (INs) will be able to change the destination according to the time of day, day of the week of whatever variable was desired.

Second, alternative billing. Dumb networks charge the number which originates the call. INs would allow people to make calls from one number and be charged on a different number. This already happens with freephone services, an embryonic IN service which charges the company receiving the call rather than the person making it. Fully developed IN services would allow people to charge their home numbers for personal calls made from the office and vice versa.

Third, call barring. At present, mechanisms for preventing people using the phone for calling certain destinations for example, stopping young children spending thousands of pounds on chatlines - are rather crude. INs would allow the subscriber to specify which destinations could be called from his or her phone, and to vary these specifications from person to person.

Fourth, virtual private networks. At present, if a large corporation wants to link its offices with a special telecoms network, it has to lease lines from the public telecoms operator. It can then tailor the network to its own needs. VFNs would offer all the services companies expect from private networks - such as short dialling and call diversions - but over the public networks.

Users would have the impression that they were speaking to each other over the company's private networks. The advantage is that they would not have the hassle of having to maintain their own networks.

In theory, all these sophisticated features could be provided in a number of different ways. The IN concept, however, relates to a specific concept for providing them. The essential element is that the intelligence is located in centralised computerised data bases rather than residing on the telephone exchanges.

The reason for this is that it is then only necessary to produce one database for each service instead of writing new software for each exchange in the network. The latter approach is complex, expensive and time-consuming.

Two further characteristics help define INs. First, a fast high-capacity signalling system. This allows the exchanges to communicate effectively with the databases, where they are told how to route calls or charge for them. If the normal, slow signalling system was used, it would take so long for the message to get back from the databases that the person making the call would probably have hung up.

Second, open interfaces between the various elements of the system - especially between the telecoms exchanges and the databases. This is essential if products from different manufacturers are to work together properly. It is, however, one of the trickiest aspects of INs.

The advantages of INs to the consumer could be immense. Instead of having to make, in some cases, dozens of phone calls before being able to track somebody down, INs will mean there are more first-time successes. Businesses and professional companies which need to be in contact with their customers will not lose business by being out of touch.

PTOs will not only need to meet the threat of other PTOs, they will also need to compete against private operators, such as IBM and EDS, and stem the drift of large corporate traffic onto private networks. In doing this, INs give them an armoury of weapons, the most important of which are probably virtual private networks because these compete directly with the offerings of the private operators.

PTOs also expect to benefit from INs through getting access to better quality, cheaper equipment for their infrastructures.

As such, INs pose a threat to the established telecoms manufacturers. Most have little expertise in creating and managing large databases. Unless they can either grow this expertise internally or acquire it through mergers, they are in danger of losing an important slice of their market. By contrast, INs are the first real opportunity for computer companies such as IBM, Digital and Tandem to get into the heart of the networks.

The trend has been to automate and, in the process, networks became dumb

offices with a special telecoms network, it has to lease lines from the public telecoms operator. It can then tailor the network to its own needs. VFNs would offer all the services companies expect from private networks - such as short dialling and call diversions - but over the public networks.

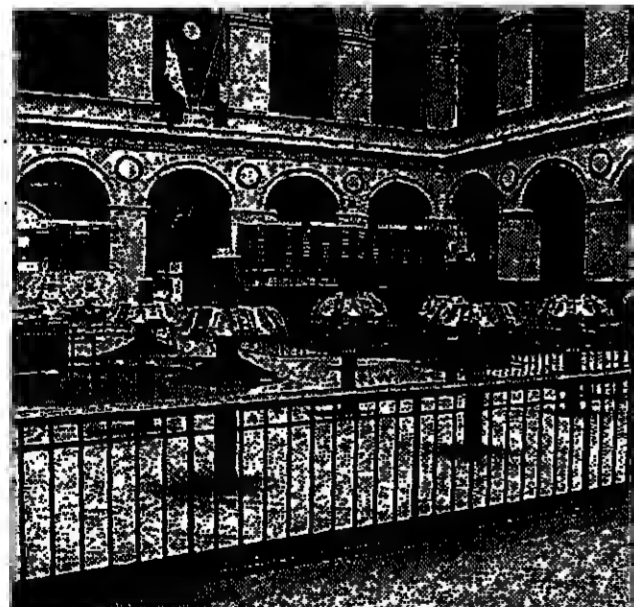
Users would have the impression that they were speaking to each other over the company's private networks. The advantage is that they would not have the hassle of having to maintain their own networks.

In theory, all these sophisticated features could be provided in a number of different ways. The IN concept, however, relates to a specific concept for providing them. The essential element is that the intelligence is located in centralised computerised data bases rather than residing on the telephone exchanges.

Where do powerful ideas in communications come from?

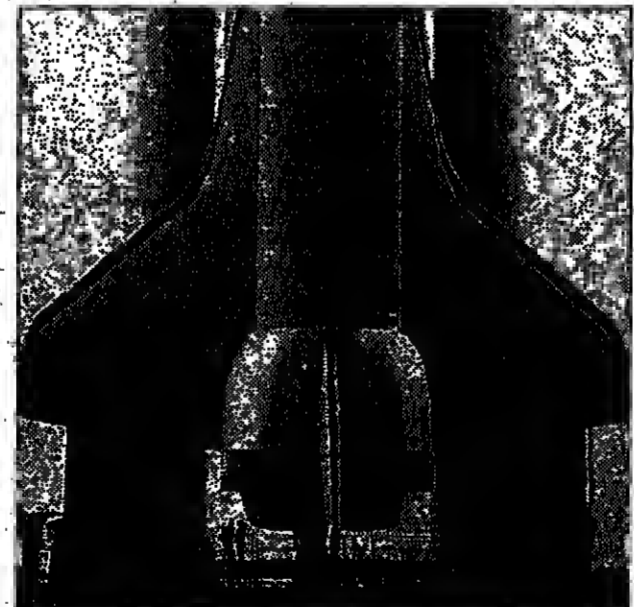
NORTHERN TELECOM

THE POWER BEHIND COMMUNICATIONS



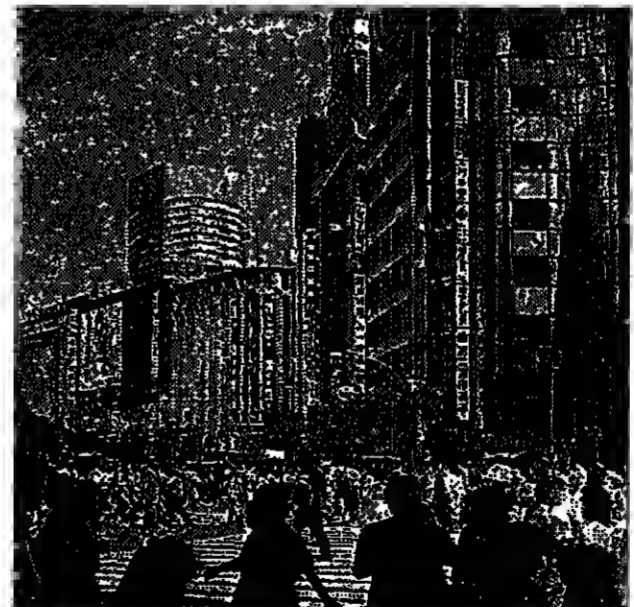
Paris Bourse - A major European stock exchange.

When the Paris Bourse decided to expand its services to meet growing demand in France, they chose Northern Telecom to supply their digital voice and data communications network.



The thrust behind NASA's data network.

To carry the vast amount of data from its computer network to desktops throughout the Ames Research Center, NASA selected a Northern Telecom integrated network system. It links the widest variety of terminals of any PBX. It opens access to the local network of supercomputers, mainframes and minicomputers. It even reaches data on NASA's nationwide computer network.



The world's largest telephone company.

When Japan's enormous public telephone network needed new community dial offices, they wanted the most advanced equipment available. That's why they called on Northern Telecom - the corporation that has built the largest base of digital switching systems in service around the world.



S.W.I.F.T. - the world's largest financial services network.

When the Society for Worldwide Interbank Financial Telecommunication decided to move to packet switching technology, it turned to Northern Telecom. On completion of its enhanced network in 1990-1991, no fewer than 2,600 financial institutions in over 60 countries will be constantly linked. And every day, over one million messages will pass between them.

© 1989 Northern Telecom



INTERNATIONAL TELECOMMUNICATIONS-6

Advances in mobile communications

New ways to keep in touch on the move

IN THE more developed markets, the penetration of mobile communications already represents about five per cent of the population and some ETTs (post and telecommunications authorities) are predicting that, in the near term, a significant percentage of their income could be derived from mobile operations.

The indications are that growth will continue and market projections are suggesting 15 to 20 per cent penetration within ten years. The result of this is that mobile system technology is faced with two major challenges: meeting the demand for current services; and the need to establish more effective and efficient systems to meet the demand for advanced services.

The UK is in the forefront of these developments. As well as being heavily involved in the next generation pan-European cellular and Telepoint, Lord Young announced plans last month for Personal Communications Networks (PCNs) which will provide innovative communications into the 1990s.

While there are many means of communications, it is cellular radio which has had the most profound effect on personal liberty. It brings with it a freedom to communicate and to remain in contact with others in a manner not previously possible.

In Scandinavia, then the UK, and now the rest of Europe, these benefits have been recognised. This is the reason for the rapid growth in the numbers of subscribers.

The cellular penetration in Norway last year was over 30 per 1,000 inhabitants, with the other Scandinavian countries all having over 15.5 per 1,000. The equivalent figure for the UK is 6.5 - and still growing - whereas in the US, after some five years of operation, the penetration is only about 7 subscribers per 1,000.

Today's success is also a source of problems as the capacity of existing systems will be saturated and quality of service will suffer - unfortunately, already a fact of life at the busy hour on some systems in high activity areas.

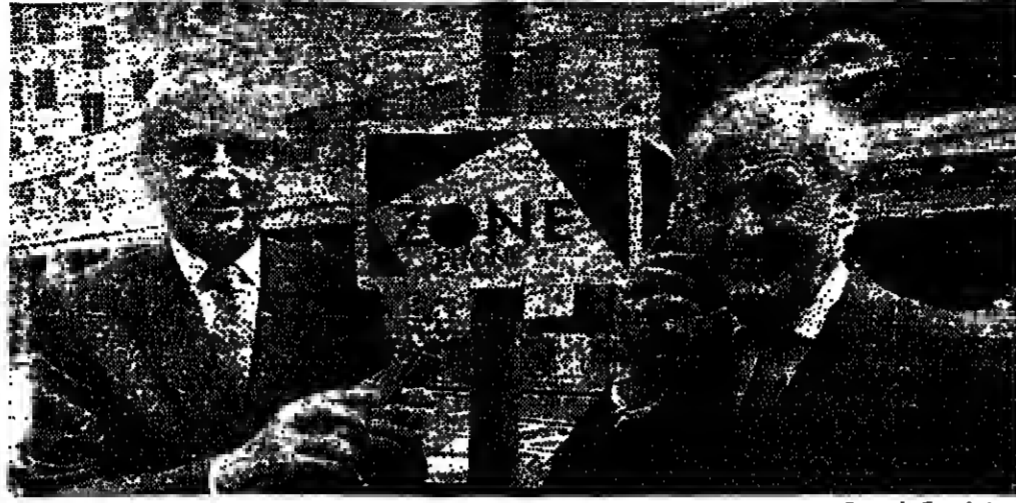
This success also ensures that there is the potential market for other innovative means of communication. Thoughts are already moving towards the long-term goal of a Global Mobile Phone (GMP). However, in view of the length of time that it takes to derive and refine the concept, as well as reach international agreement - and then bring a product to market - this is a very

long-term project which will probably not come to fruition until the late 1990s.

Before then, the pan-European digital cellular radio system, agreed by the European telecommunications operators, will make it possible for a user to maintain contact wherever he is in Europe using just one cellphone.

This facility, also known as GSM (Group Special Mobile), from the committee set up to study the options and to arrive at a technical specification, will also enable European manufacturers to obtain the economies of scale so necessary for low-cost manufacture when it is implemented in the 1990s.

Operators in 17 countries have signed an agreement to implement GSM in their countries.



Lord Young (left) intends that all personal communications network in the UK should operate to a common standard. He is seen here with Sir Derek Alton-Jones, chairman of Ferranti, with the new Zonophone telepoint service in London.

According to a study carried out on behalf of PA Consulting Group for the European Community, there are about 82m mobile workers in Europe who may be regarded as the potential market for GSM.

The study forecast that by 1993 the current analogue cellular systems such as Cellnet and Vodafone will have been overtaken by GSM and that, by the turn of the century, it will occupy a very large proportion of the over 14m subscribers. The underlying trend will no doubt be right even if, in an age of fast-changing technology, the detail may be wrong.

While the majority of users will not need a cellular phone while traversing Europe, it will be of value to a proportion of the business community, as well as long-distance coach and lorry drivers and others who are frequently out of contact.

Furthermore, the pan-European digital cellular system will provide the continued capacity for growth. In addition it is an advanced digital system. Benefits that accrue from this include higher speech quality, more secure transmission will be encrypted, and faster call set-up times.

This latter facility will reduce the time taken between dialling a number and the telephone ringing. While this may seem to be a minor point at present, it is one that will assume greater significance in years to come. This is because,

with the digitalisation of the public telephone network, users will come to accept fast call set-up.

However, until GSM arrives, cellular communications are somewhat fragmented as, with the exception of Scandinavia, the current analogue systems used in the various European countries are incompatible with one another.

Each European country will have its own time scale for the introduction of GSM. Some will also introduce competition. For example, in Germany the Bundespost will operate one network while the operator for the competitive private network has not been selected yet from the various bidders.

One of the consortia consists of car manufacturer, BMW; as well as Veba, the German industrial group with interests in power generation and petrochemicals; BellSouth, one of the regional telecommunications operating companies in the US; Racal Telecom; and Cofira, the operator of the only analogue cellular network in France. Racal is also a member of the Cofira consortium.

In the UK, the existing cellular operators, Vodafone and Cellnet, will operate GSM. With a combined user base of around 600,000 together they now have the largest cellular subscriber base in Europe. They have overtaken the over half-million subscribers of the Nordic Mobile Telephone system (NMT) and are growing at a faster pace. Their vast amount of experience in developing, operating and marketing cellular systems will be a major asset internationally.

In addition to those operations above, Racal has also involved in cellular operations in both Malta and Greece while British Telecom, 60 per cent owner of Cellnet, has recently purchased some 20 per cent of the equity of McCaw Cellular Communications for \$1.37bn.

The drive towards miniaturisation is accelerating

This is a long term investment, made because BT is anticipating the globalisation of telecommunications and also wishes to re-inforce development of those businesses that are independent of the regulated UK markets so as to help protect BT from any slow-down in the UK market.

As the same time as there is this massive growth in cellular systems, there are other technologies coming to fruition.

Four companies have been licensed to operate Telepoint services based on UK-developed second generation cordless telephone technology. This allows users to make outgoing calls when they are within about 200 metres of a public base station.

As users are unable to receive incoming calls it is considered by many to be the poor man's cellular. While there may be some truth in this, it really caters for those who just need to make calls rather more than receive them.

Furthermore, with the objective of not losing any of this impetus in mobile communications, the UK Government announced last month that a Mercury/Cable and Wireless consortium will receive a licence 'subject to them putting forward acceptable proposals' to operate a Personal Communications Network (PCN) of the form mooted in the 'Phones on the Move' discussion document on Personal Communications in the 1990s, which was published in January by the Department of Trade and Industry.

As Motorola took part in the Mercury/C&W submission and

supported their proposal to Lord Young, there would not have been any shortage of specialist technical expertise.

Lord Young stated that he intended to identify one, or possibly two, other prospective licensees of PCNs by the end of the year.

His intention that all the PCNs should operate according to a common technical standard in order to ensure competition between the operators.

The underlying 'micro-cellular' concept would employ radio base stations with small service areas - this would allow the use of very small and light pocket handsets, capable

offering vastly improved performance, especially in terms of battery life, over previous products.

For example, Motorola's recently launched 9800X personal cellphone gives up to 75 minutes' continuous talk time or 20 hours' standby, and weighs less than 350gm. With the slim-line battery attached, instead of the standard one, the weight is only 305gm. This weight reduction, while achieved at the expense of operating life, results in a really 'handy' product.

Key factors in this drive to miniaturisation are improvements in battery and semiconductor technologies. Philips Components of Eindhoven has announced a set of semiconductor chips cellular radio which reduces the number of components required, and so reduces size and weight, as well as claiming to have an appreciably reduced power consumption.

Targeted at the next generation of pocket-size, battery-powered cellular handsets, as well as traditional mobile applications, it is claimed to be the first chip set on the market geared to the specialised needs of cellular radiotransceivers.

Commenting on the products, on behalf of the Telecom Division of Philips Telecommunications and Data Systems, Mr Philip Timmarsh, national cellular sales manager, said that 'this is the first high integration chip set for cellular phones. Its compact, power-saving design will not only enable manufacturers to introduce true, pocket-sized portables but will also stimulate the market for cellular phones, overall.'

This statement is supported by the market researchers at Dataquest who estimate that UK cellular subscribers will increase from around 400,000 in 1988 to 1.2m in 1992.

The number of cellular system subscribers in Britain could reach 1.2m by 1992

of long periods of operation without the need to recharge the batteries.

The indications are that these pocket radio-telephones will be the battleground for the public mobile radio telephone markets in the 1990s. The further implication being that the cellular radio operators will be shifting much of their focus away from car phones as such, towards pocket radio-telephones in order to sustain their growth through to the year 2000 and beyond.

This move towards true portability is already well under way with hand portable cellphones now on the market

Researchers are already moving towards the long-term goal of a global mobile phone system, reports Adrian Morant

When fully operational in the mid-1990s, it will be possible to use the same car telephone as one travels across the continent. The European operators have already published projected GSM investment figures which indicate that a total of Ecu 700m (around \$500m) will be spent each year through the 1990s.

At the same time, the projected total European market for systems and terminals is estimated to exceed Ecu 20bn to 25bn over the 12 year period to 2000. This is an average of over Ecu2bn a year.

The economies of scale whereby the same equipment will be suitable for all markets across Europe will be of major benefit in the 1990s when, after all, the single European market will have come to fruition.

Paging and private mobile radio systems

More opportunities for business

SINCE the most widely used means of business communications is the telephone, it is therefore the telephone that the majority of people would expect to use while on the move. This accounts for the popularity of cellular systems. However, paging and private mobile radio (PMR) provide alternative and complementary means of communications.

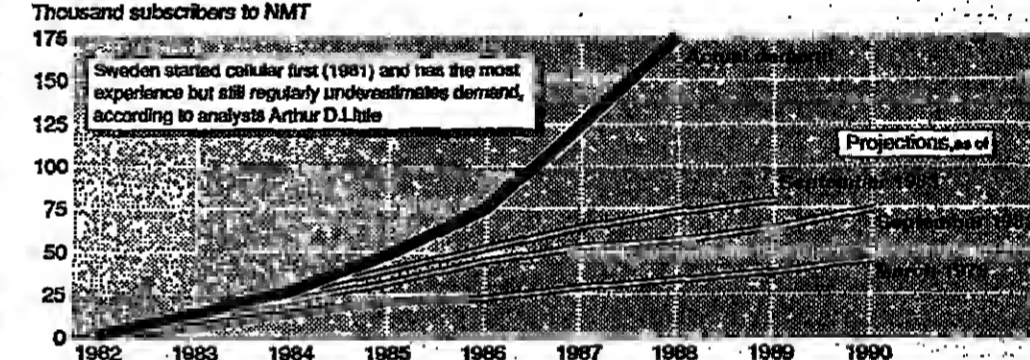
The rapid growth in cellular has increased awareness of the benefits of effective communications, with the result that it is becoming increasingly recognised that, even though PMR and paging are both lower in cost, they are not necessarily inferior.

The former facility keeps staff on the move in two-way contact with the office, while the latter enables an 'alert' - ranging from a simple beep to a full alphanumeric message, to be sent to person on the move.

In 1986, there were around 425,000 PMR radios in use. However, partly due to lack of available radio spectrum, this figure had only grown by just 12,000 to around 440,000 by last year.

When the Band III spectrum, previously used for black and white 405-line TV, was released to mobile radio, the scene was set for a change. These extra channels, together with advanced trunking technology derived from cellular radio that ensure the efficient use of the channels, have resulted in a resurgence of interest and new opportunities for business. But, as national operator GEC

Cellular systems in Sweden



Keeping in touch, above, via Inter-City Paging; and below, with vehicles on the move, using Band Three Radio, the nationwide trunked mobile radio network.



The European digital paging system will allow 'roaming' facilities across the service areas of 13 countries. The system is expected to be a world leader in its field

National One points out: 'It isn't to do with high technology - it's to do with low cost.'

The two national operators are Band 3 Radio which consists of a consortium of Philips, Digital Mobile Communications, Racal and Securicor and GEC's National One. They are rolling out their networks to cover the country.

Under the terms of their licences, they are required to cover two-thirds of the country, geographically, by 1991 - an area encompassing at least 80 per cent of the population. However, the target of the latter is to achieve this coverage by the end of this year, while the former already covers 60 per cent of the population and has over 10,000 subscribers.

In addition, eleven regional licences have been awarded by the Government. Many service providers are regionally based (even for a national operator) and so provide users with the choice of dealing either with businesses local to their operations or with national communications specialists.

Trunking makes more effective use of the available channels by grouping them together. Then, when a user wishes to make a call, he is allocated the next free channel.

As soon as the call ends, that channel is returned to the pool, ready for re-use. This avoids the congestion that occurs on some channels while others are idle, when channels are dedicated to specific users.

Overall, trunking allows a group of channels to carry proportionately more traffic than the same number of channels used separately - the result being that channel availability is greatly improved.

The efficiency of such a system relies on sophisticated signalling protocols. In the UK, the overall operational standard, MPT 1237, is a collaborative effort between the Department of Trade and Industry, all the Band III network operators

and the equipment manufacturers.

This has been drafted as a signalling standard, suitable for a wide variety of systems, and these specifications have been proved by the active operation of systems.

When the Band III services were introduced the operators were permitted to use equipment to an interim technical standard. This is now being phased out now that MPT 1243, the main functional specification, has been approved.

While the key patents are held jointly by Philips, GEC and Motorola, to encourage the adoption of the UK protocols as European standards, there are no patent restrictions on their use by other European manufacturers of trunked mobile radio systems.

This will benefit manufacturers in terms of economies of scale, while the user will gain

from wider choices and price competition. The Department of Trade and Industry is actively promoting the use of MPT 1237 and interest is being shown by a number of other countries including France, the Netherlands, Denmark and West Germany.

In the case of the latter, ZVEI (the German electrical industry association) is translating the specification with the aim of eventual adoption as a national standard. While FMR provides two-way communications, the importance of the one-way radio pagers is frequently overlooked. Pagers are relatively low in cost and range in facilities from the simple 'beep' through to more sophisticated versions providing full alpha-numeric messages.

In the UK the various operators provide a range of service area coverages for a commensurate fee.

Mr Daniel Nabarro, chairman of Inter-City Paging is of the opinion that, despite the fact that the UK radio-paging is expected to grow by 25 per cent this year, there are very many people who fail to appreciate how paging could benefit them.

He points out that many possible users assume that a pager is only of value when the user is called several times a day. In fact, just one message a week - or even a month, if the message is critical - may more than justify its use.

There are even those, on-call for emergencies, who hope their pager will never beep. Common goals are appearing with the UHF Europe paging initiative under way across Europe. Alphanage is being constructed in France and Cikyrufin Germany. While only intended to cover major conurbations, they are both effectively national systems as they are under the umbrella of the national PTAs.

In addition, a similar system is under way in Italy and there is the possibility that Spain and Austria might follow suit and implement corresponding systems. A British consortium of all the major paging companies, with the exception of Mercury, will also construct a system operating on the same UHF frequency to cover London and the south-east.

Together, they will permit city-to-city roaming across the various countries. Called Euro-page, it is expected to be operational from the beginning of 1990. It is believed that Racal Telecom will be the prime contractor using transmitters supplied by Paging Systems, the sister company of Inter-City.

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Tel: 33 (1) 48 45 77 13 Fax: 33 (1) 48 45 20 53
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Martin Dawes Communications, West Germany
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Tel: 0221 17 10 35 Fax: 0221 17 20 06

INTERNATIONAL TELECOMMUNICATIONS-7

IN THE early 1980s, Mr Kenneth Baker, the then Minister for Information Technology in Britain, would talk about cable television in grandiose terms and, in particular, its role in creating the wired city of the future.

Raymond Snoddy examines the cable business

Changing perceptions

New television channels, based firmly on entertainment, were seen as the engine that would drive forward and fund advanced telecommunications services.

In many ways, it was a futuristic fantasy that, until recently, seemed laughable as cable operators faced with a slow growth of the market concentrated on survival and installing basic cable equipment rather than worrying about high technology or wired cities.

Slowly, all that is beginning to change and cable operators are beginning to take telecommunications seriously again as an integral part of their business with the potential to create serious streams of revenue.

The change in perception of cable as a business, and telecommunications within it, despite all the publicity given to satellite television, can be summed up quite simply - the Americans are coming.

Immensely profitable US cable companies have identified the UK as a key overseas market. But among American cable operators, such as United Cable and Jones Intercable, there has been an entirely different class of investors - the US regional telephone companies, "the children of Ma Bell".

ent forbidden from running cable television companies in addition to their existing telephone businesses.

There is no such prohibition in the UK. The enormous US telephone companies are coming to Britain primarily to use cable to offer an alternative local telephone service to British Telecom, but also to gain experience of cable television in case of further deregulation in the US that would allow them to become cable operators there too.

Pacific Telesis (Pactel) is involved in a joint venture with Jones to run East London Telecommunications, the Docklands cable franchise which has now installed its first 40 business telephone lines and which plans to operate its first 100 domestic telephone lines in the autumn.

The joint venture partners have also been awarded a franchise covering the London boroughs of Redbridge, Barking, Dagenham and Bexley and has also applied for the Waltham Forest franchise. Although the US owners are moving cautiously it is the eventual aim to bring cable telephony to those areas.

US West, another part of the former Bell empire, is even more active in the UK. The company is a shareholder in Windsor Television

one of the original 11 cable franchises awarded in 1983 and which is demonstrating that telecommunications has the potential to become a serious business for cable operators.

So far, more than 500 business lines have been installed in the Windsor franchise area. US West is, however, the majority shareholder in the

UK cable operators are beginning to take telecommunications seriously

Cable Corporation, holders of the Birmingham franchise, one of the largest cable franchises in Europe with 460,000 homes.

From September, the company will be installing cable in Birmingham and at the same time installing telecommunications capacity.

US West is also involved with United Cable to provide telecommunications services in its south London franchises covering Croydon, and the boroughs of Sutton, Kingston, Merton and Richmond.

Mr Jim Dovey, chief executive of United Cable Television International, sees the business area of Croydon as an attractive opportunity. In addition,

three other US telephone companies Bell South, South West Bell and Nynex, the New York phone company, are all believed to be exploring cable and related telecommunications opportunities in the UK.

Partly stimulated by the US investment interest, there has been a remarkable burst of activity from the Cable Authority, the industry regulatory body.

Although there are only 10 modern cable franchises in operation and a modest number of cable subscribers - 284,000 on both old and new systems - no less than 41 franchises have now been awarded covering a total of 4.8m homes.

A further 31 franchises have also been advertised given a grand total of 9.2m homes that could be in theory be cabled, for both television and telecommunications, if all the systems are built.

Mr Roger Marshall, a director of East London Telecommunications, believes that cable could create viable local telephone companies particularly if the industry is given the right to operate its own switching between franchises following the 1990 review of the BT/Mercury duopoly.

Already, the Department of Trade and Industry is suggesting it will allow connections between adjacent franchises of up to 500,000 homes for the exchange of pictures and for telecommunications as long as they are in the same dialling area.

By the late 1990s, Mr Marshall believes cable will have emerged as a significant third force in BT and Mercury in the provision of local telecommunication services.

Mr Jon Davey says: "I think the perception of cable and telecomms has changed particularly because of Windsor and E.L.T. People are now realising that this is not just something imaginary."

The strongest evidence so far comes from Windsor Television which includes the enormous Slough Trading estate within its franchise area.

"We have beaten the path for everyone else," says Mr Tim Halfhead, managing director of Windsor.

Apart from the 500 business lines, the company has a small number of residential lines and plans a more substantial residential trial. It is the use of the business lines, interconnected by Mercury, that has caused the most surprise.

Windsor estimated £50 gross revenue for each line a month. Instead, the figure has turned out at £135 a month, although margins could be improved.

By the end of next year turnover from telecommunications could be higher than that from television. "We see it as being very big business," Mr Halfhead said.



Optical fibre cable being laid in the Lake District in Cumbria.



Telepoint technology: a new concept in cordless telephones, allowing users in Britain to make calls within 100 metres of public base stations.

Mobile systems

Continued from page 6. The memorandum of understanding having been signed between Europage (Air Call, British Telecom, Digital Mobile Communications, Inter-City, Millicom and Racal) and operators in France Germany and Italy, it is now expected that the commercial agreement will be signed by all the parties.

There is already substantial pent-up demand for this system which is essentially an interim system and is expected to be loaded with subscribers within about five years.

It is a "follow-me" system so that callers would call telephone the normal number to initiate the sending of a message, irrespective of where the user is currently located.

Further down stream will be Ermes, the European digital paging system. Thirteen member-countries of CEPT, the organisation of the European telecom authorities, will define and then construct a paging network operating at VEF.

The intention being to allow roaming across the service-areas in all these countries, once the specifications have been agreed (by 1990) and construction, co-incidentally with the

single-European market, in 1992.

Issues that need to be resolved include inter-country billing and roaming; and, as the Ermes system is expected to lead the world, it is likely that the US and others will follow.

Here it is worth noting that, as Mr Godfrey Wilson, managing director of Digital Mobile Communications delights to point out, that the total population of the European CEPT countries will be around 430m in 1990 - an appreciably larger potential marketplace than even the US.

It is estimated that only about 5 per cent of the user-population will take advantage of the international roaming facility, nevertheless, they will find it of inestimable value. This is because it is difficult to set up a detailed programme in advance for an overseas business trip - and virtually impossible to keep to it.

Today, the British market is the most advanced in Europe. In addition, UK companies have already contributed to paging developments in other countries. For example, Air Call (recently taken over by US telecoms giant, BellSouth) has set up complete turnkey systems in Ireland, Spain, the UK and Switzerland.

Another company with experience across Europe is Paging Systems, whose mission is to develop leading-edge technology especially in radiopaging with emphasis on fully-automated paging networks and associated management software.

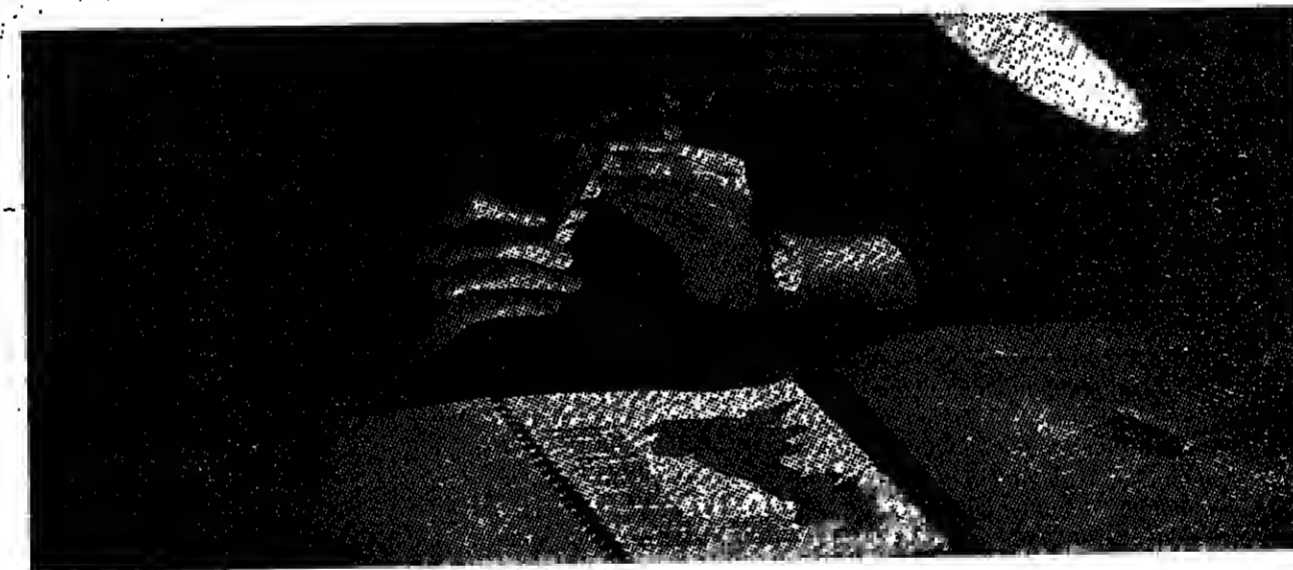
Its systems were initially developed for its sister national radiopaging company, Inter-City Paging, but have achieved major sales overseas - especially Spain and Switzerland.

Mr Nabarro, who heads up both companies, is expecting entrepreneurs to emerge in the wake of the liberalisation of European telecommunications. No doubt, he will be aiming to apply his expertise in a mutually beneficial manner as the business community in many other countries increasingly looks to paging as a means of keeping in touch.

Adrian Morant

A REVOLUTIONARY NEW PHONE SYSTEM. Since mobile phones have been around for some time, you may feel there's nothing new to hear. But when three major voices in the telecommunications business get together to create a new mobile phone system, it's hardly surprising everyone wants a sneak preview. Motorola are the world's largest cellphone manufacturer and suppliers of the Cellnet system. Mercury Communications runs Europe's first all-digital system which is also Britain's first competitive network and Shaye Communications have developed the technology which makes Mercury Callpoint a reality. The expertise of these three companies is set to make this affordable, compact phone system Britain's greatest talking point.

A sneak preview of Britain's new talking point

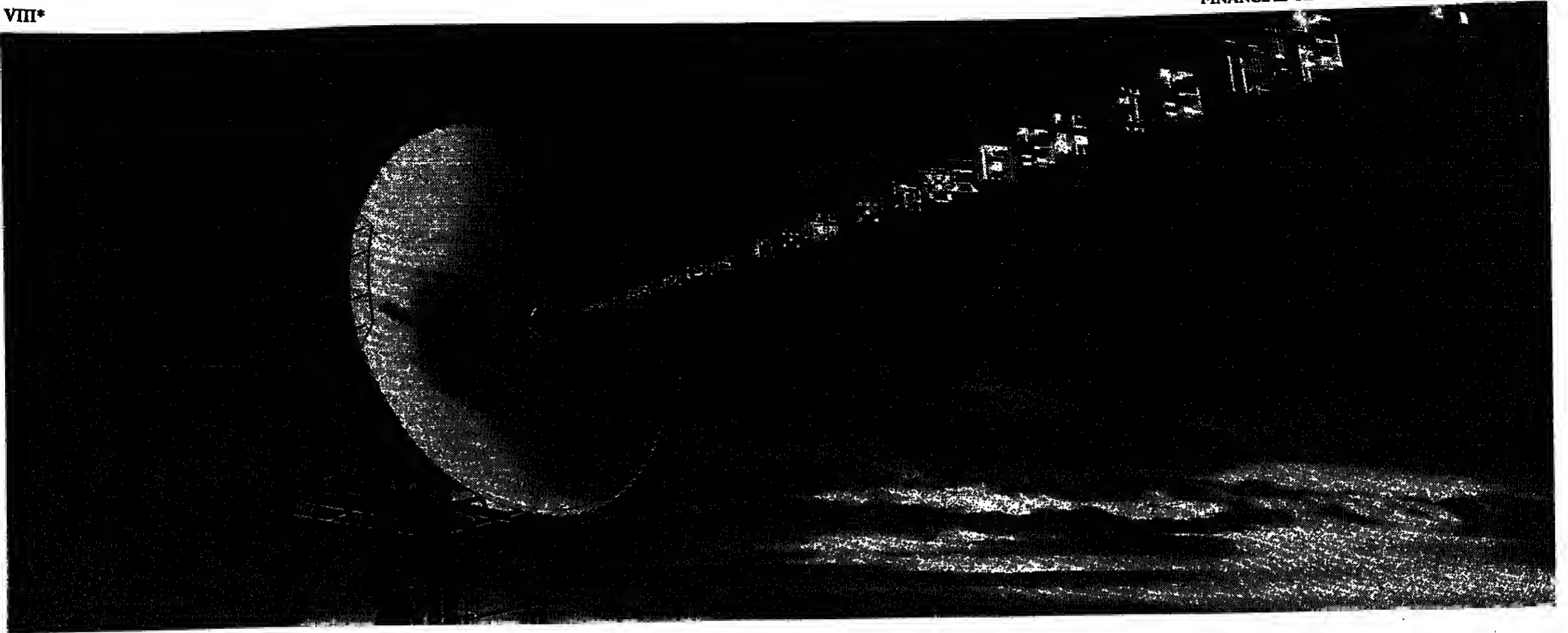


THE NETWORK. A system of base stations (or Callpoints) marked by distinctive blue and white triangles, will appear in highly visible sites all around the country. All you have to do is be within 200 metres of a Callpoint sign and dial on an approved handset. The slim, lightweight handset is no bigger than an ordinary pocket calculator, yet it will connect the user through a comprehensive national network to anyone, anywhere in the world, at anytime.

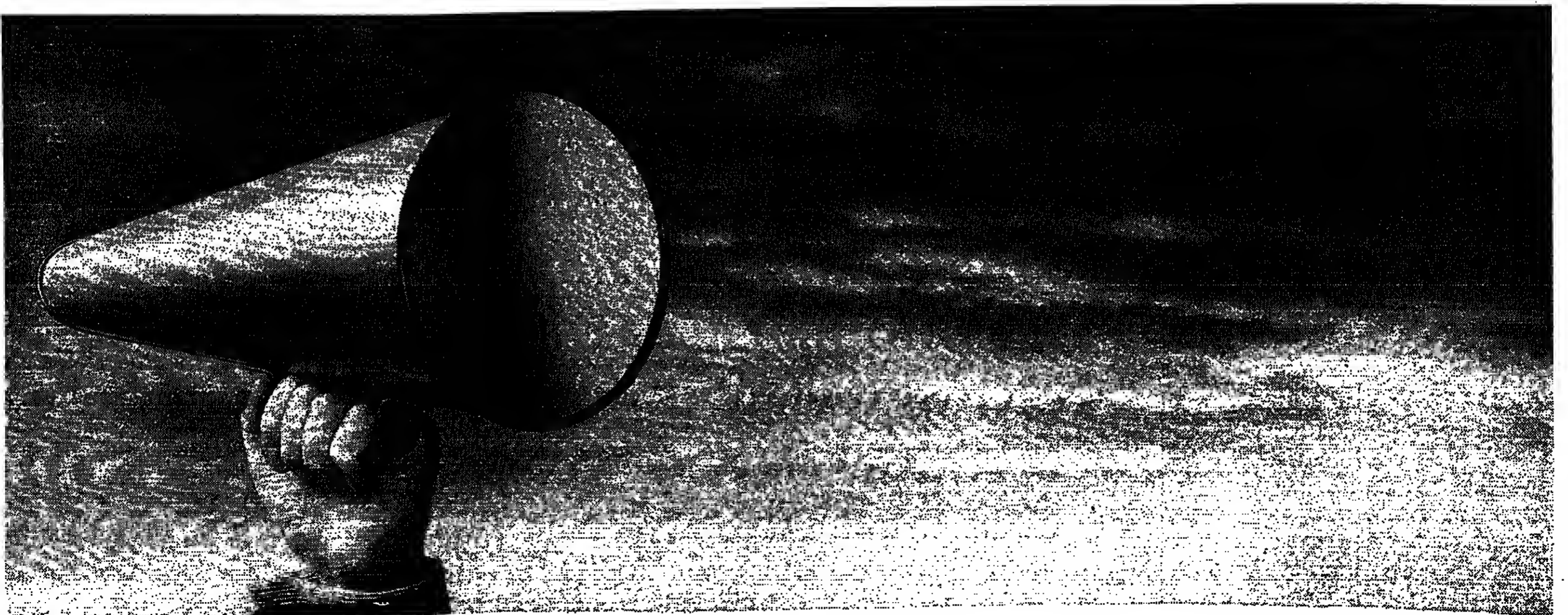
MAKE YOUR BUSINESS A TALKING POINT. At present, we are talking to a number of large companies who feel they can provide key sites suited to the needs of Mercury Callpoint. If you'd like more inside information about Britain's greatest talking point, call Mercury Callpoint on 0276 20915.



A USER FRIENDLY SYSTEM. With the cost of handsets and use of the network both much lower than other mobile phone systems, Mercury Callpoint is the ideal tool for people on the move. And with base stations in convenient sites, you'll be able to spend more time doing business instead of searching for phone boxes and change. WHERE WILL CALLPOINT BE? In a word, everywhere. Key sites include travel centres such as stations, airports and motorway service areas, as well as in high streets, supermarkets, banks and pubs. Handsets will be widely available from both specialist dealers and high street stores. The launch of the network later this year will coincide with a promotional campaign which will ensure Mercury Callpoint really is Britain's greatest talking point.



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language of business,
how do you
expect to be heard?**



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This is merely a taste of what can be achieved through our phone and data networks. A system that, together with our satellite and microwave transmission network, allows you to contact your customers almost anywhere in the world.

Why not find out more about the language of business? For your action pack containing our catalogue and Business programmes, contact us on the number below. Achieving success in a crowded and noisy market place can be extremely tough.

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INTERNATIONAL TELECOMMUNICATIONS-10

Money is the main catalyst for change, says Julie Harnett

Era of private integrated networks

LOWER OPERATIONAL costs, better security of information, more reliable, faster communications links and tighter management control, are reasons put forward for installing private communications networks.

There is no doubt that the 1990s will be the age of integrated networks that support not only voice, data and graphics communications but fax, video-conferencing, electronic messaging and mail, voice messaging and voice mail as well as paging, security systems and so on.

Taking the two main methods of communications, there is expected to be substantial market growth over the next few years. According to market researchers Datquest, for example, the European telecommunications industry was worth \$67.4bn in 1987 but will be worth \$105.5bn by 1992. The European data-communications market, worth \$2.5bn in 1987 will be worth \$5.2bn by 1992.

A number of initiatives are under way to provide advanced telecommunications on an international basis that will add momentum to the industry as it moves towards the end of the 1990s.

One such programme, RACE (Research in Advanced Communications in Europe) aims to build a new European telecommunications infrastructure with the objective of bringing every type of communications medium, including home banking, to the masses by 1995.

The biggest direction the market has taken is from analogue to digital circuits, as can be gauged by figures supplied by Datquest showing that the number of KiloStream circuits in use is expected to grow from 75,000 this year to 250,000 in 1993 while MegaStream will grow from 10,000 this year to 60,000 in 1993. The UK dominates the private multiplex (MUX) and X.25 market in Europe with over 40% share.

According to Mr Mark Davies, business manager of Digital Network Systems at CASE, "In the last 12 months we have witnessed a definite shift in two directions. One is a migration from analogue to digital circuits, the other is the parallel move towards putting data as well as voice on the network."

The philosophy now tends to be that the private network is cost-justified on voice with the added benefit of getting a free data network.

Mr Davies says that a growing number of organisations are throwing away tie-lines connecting PABXs on different sites - and putting in a MegaStream circuit.

about 20 times more than an analogue circuit and a MegaStream about 4 times more than KiloStream, but then you get between 30 and 200 times the capacity and once in place your transmission costs are nil.

As well as circuit costs, users also have to add into the cost/benefit equation other costs such as administration, network management, establishment of international links and gateways, interfaces to the PABX and connection to the public network where required and so on.

The catalyst of change in every case is money, says Mr Davies - "that is, direct cost and transmission cost-savings that can be made by putting everything on to one circuit that goes through one multiplexer. What is more, there are indirect cost savings. For example, you have a single point of management, fewer suppliers and maintenance companies to deal with and a lot less wiring running round the building."

There is increased competition in the marketplace. Last December, IBM and Siemens signed a telecommunications agreement which established a joint-venture marketing and services company with

the purpose of offering communications products for private networks. The activities will cover digital PABX switches, advanced telephones, voice messaging and related products, carrying voice and data in and between office buildings.

In May this year, Ericsson Business Communications announced that it was moving into the area of corporate integrated voice and data networks. Gandalf Digital Communications has recently announced a number of private network developments and enhancements as has Cherkoff Telecommunications.

Liberalisation of the communications network is also bringing competition from a number of other areas, as Mr Davies explains: "At the moment, the only network services on a national basis is through BT Mercury and Kingston (Hull), but there is an interesting move at local level with cable television companies starting to offer access to Mercury."

"Obviously Mercury in this respect than BT because its fibre optic national network is already 100% digital. However, unlike BT, they cannot provide connections to houses and offices, whereas the cable companies can but don't have the network."

A joint initiative seems to be an ideal solution, and there would certainly appear to be a large enterprise opportunity in

the provision of TV/video/fax/electronic mail links between closed user groups to provide live broadcast/message services to support communications in-house and between remote branches as well as with suppliers, customers, shareholders, financial institutions and so on.

There are a number of network service providers such as Istel, EDS and Hoakyna, but until now, they have not been able to offer simple connections. They had to add value, for example, by managing the network on behalf of the user or by running an electronic mail service.

That all changed last month with an announcement by the Secretary of State for Trade and Industry, and welcomed by Sir Bryan Carlsberg, head of OfTel, that a new class of private branch systems licence is to be issued that would allow a simple resale of circuits leased from a PTO (primarily BT and Mercury).

However, Mr Davies believes it will be some time before organisations are ready to sell extra bandwidth: "They are still too concerned with building networks to meet demands of their own end users. It will be some time before they will be in a commercial resale position."

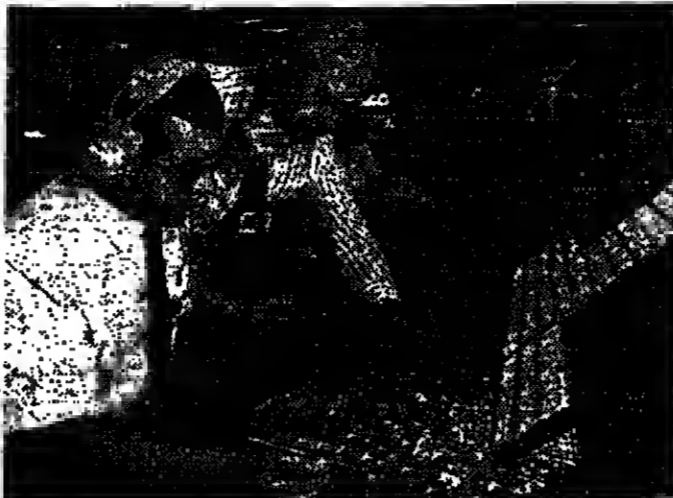
Nevertheless, he says that a number of large companies that have been planning and implementing digital backbone networks that will support corporate communications networks over the past 18 months have had potential resale of spare capacity very much in mind - not many companies have been taken by surprise by the announcement.

Mr Ray Northcott, director of networking practice at consultants Butler Cox, feels that before an organisation can sell spare capacity, it has to have a commercial attitude towards its own internal telecommunications services; but, sad to say, "there are not many companies that have got that."

He says that there are too many technologists saying that what they need is a relational database or that they need an OSI data communications network. What they should be saying is that they need faster links to their customers and better services to meet end user needs. The telecommunications manager should be a broker of services, not an operator of networks.

"If you are running an internal network that needs to be upgraded in order to meet user demands, how do you justify the investment? You justify it, at boardroom level, by the rate of return. It is a commercial objective; there is no escaping it. There are some people who will say it is necessary, it's infrastructure; it's overhead. Just baloney. It is a business driven decision that has to represent value for money."

"If I were a production director who believed that I could operate more efficiently through communications or network services, then I should be able to compare the value for money I would get from internal services with those I could get externally."



The man who pays the piper should be able to call the tune. With ISDN on the horizon and the improvement in public network services such as X.25, and with companies like Istel, Hoakyna, Bact and IBM getting better and better at managing private networks on behalf of people, then the more apparent will become the need to treat a network as a business.

Mr Northcott says that those involved in developing private communications networks should be more involved with the people. "End-users will not be very impressed if you say you have a brilliant network if it is not organised and implemented in such a way that it helps them to do their job better. This is such a crucial area that more and more organisations are appointing service managers who work with the network specialists and applications development and systems people to deliver a system that meets end user requirements."

A valid question might be: is the cost of installing relatively expensive private integrated voice/data networks justifiable in any case when ISDN (the much vaunted public Integrated Services Digital Network) is supposedly just around the corner?

ISDN, it is said, will be able to compete with private circuits in terms of transmission

speeds and reliability as well as integration of voice, data, graphics, fax and videoconferencing using one terminal and one subscriber number.

It depends on the amount of communications traffic involved and the difference in direct, transmission and operational costs between putting in a private network using proprietary protocols and signalling systems and the benefits you get from the new integrated public service that conforms to CCITT standards.

However, in the view of many consultants, including Mr Northcott, ISDN will not have an impact on private networks before he retires - "that makes it 2005 at the very earliest - I believe Singapore is the first place where it has actually happened."

Mr Davies of CASE is a little more optimistic, although he admits there has been little uptake of IDA (Integrated Digital Access). "That's because it is still limited geographically. However, I think the pressure from Europe will make BT get its act together. France has a fairly respectable ISDN service; West Germany is offering it, too. But BT's implementation dates have slipped by two years and that has encouraged more corporations to build their own private ISDNs, which is what a digital backbone network with MegaStream is, essentially."

The rate of growth of VP has been projected within the EC to equal 0.7 per cent of gross national product by the year 2000. US revenues are expected to reach \$2.44bn by 1993 with the equivalent figure for the UK premium rate services (PRS) being £200m.

The fastest growing area of voice processing in Britain is Audiotext - this is one area where the UK is actually ahead of the US.

The range of dial-in services available on PRS for pre-recorded information include financial results, job travel, sports commentaries (delivered live or as recorded summaries) and interactive services such as help-lines and games.

Another area is telemarketing where last year \$49bn was spent by US business. In the UK, between 1986 and 1988, the proportion of British companies using telemarketing jumped from 26 to 51 per cent. Together these provide the facility for promotions and competitions, with opportunities for market sampling, opinion polls and list-building.

Delays reduced

A PRIVATE communications network, installed in less than three weeks, is helping to cut delays for British holidaymakers. The system, pictured left, links air-traffic flow-control centres in London, Madrid, Paris, Frankfurt and Rome.

Supervisors at each centre can now contact each other, either individually or in conference, at the touch of a button, to discuss overall traffic management. The network, from British Telecom International, is centred on the Civil Aviation Authority's private exchange system at West Drayton.

Will there be a role for ISDN in the business community with many corporations making or planning huge investments in private communications networks?

Mr Davies believes that most organisations will go for a hybrid, mix and match approach. "It is a fallacy that KiloStream and MegaStream type circuits will disappear, leased lines will still be available, except that the connections will run across the ISDN. Organisations will still have their digital backbone networks and, where they cannot justify a dedicated 64K link, then they will be able to use an ISDN connection."

The main point, however, is that even when it comes, the corporate network will be under the control of the communications manager who will be able to make proper selection decisions based on cost and potential cost-savings."

Nevertheless, even with the installation of private integrated networks gathering momentum, there is still a "very cautious approach to complete integration," says Mr Northcott.

"It is rolling forward at the transmission level, using MegaStream services with multiplexers to handle voice and data with equal facility. But when it comes to total integration the question is who wants to be first; and the answer is

nobody, unless there is a competitive advantage and you have very user-friendly interfaces."

In Mr Northcott's view, integrated networks will not take off as cellular radio did. "That was a solution to a ready-made problem. That is not the case with integrated networks. What we are looking at with private networks is perhaps a refinement, a more elegant way of doing what people have already been doing."

"Even when you talk about integration over ISDN you have got to think about user-friendly interfaces. If I have a 2B plus D (two 64K circuits and a 16K signalling channel) to my desk, it is difficult to access the facilities I will not use it."

It may well be that DPNSS (digital, private network signalling systems) will replace many of the analogue circuits in private use during the 1990s. It is a standard, developed by a group of UK PABX suppliers, led by BT, to overcome the lack of internationally defined standards for ISDN-type services in corporate networks and allows PABX manufacturers to offer varying levels of supplementary services such as fast call set-up, call back, diversion and transfer over the

private network. On July 7 this year, GPT and Philips Business Systems announced that functional tests of such services carried out at the GPT laboratories in Nottingham on the ISDX and Sopho-S products had proved successful. The companies expect that DPNSS will become the de facto interworking standard for private telephone networks internationally and in the UK.

Mike Hart of Philips says: "With the backing of two of

Europe's leading PABX suppliers, market forces will establish it as the users standard."

Whichever route the corporation takes, someone has to be able to make a value judgement about networks that matches business objectives with end user requirements. However, there is a dearth of executives in telecommunications who have the necessary skills and decision-making powers to be able to do that."

In terms of network design and facilities management there is no shortage of specialist companies who have expertise in both voice and data networks including Timeplex, Infortron, General Datacom, Motorola Codex, BT and Mercury. But the wise purchaser must ensure that the design and implementation authority has adequate support staff and systems components readily available should problems arise. This was one of the reasons why Thames Water and Lloyd's, for example, asked UK-based Case to design, build and manage their private communications networks.

For option feasibility studies and selecting an appropriate systems supplier, another option is to seek the help of independent specialist consultancies who can advise but will not actually try and sell you a system.

Shell UK, for example, asked Comologic to investigate computer integrated speech systems that are likely to come on stream in the next 18 months. Shell wanted to know the benefits that they would bring to the organisation not only in terms of meeting business needs and objectives but also with a view to enhancing Shell's competitive edge. ICL, Cornhill Insurance and Commercial Union have carried out similar exercises.

Another option if you are new to networks is to commission Interlink Networks to be held at the London Press Centre on November 7 and 8 (tel: 01-242 4141).

It is organised by the Telephone Users' Association. Mr Robin Verney, presenter of the seminar and telecommunications consultant, will cover areas such as network planning, configuration, design, implementation, support and management as well as the regulatory issues and supplier selection.

used as technology advances.

In an example of "putting one's money where one's mouth is," Telsis has started to use its own voice processing systems to provide 24-hour service cover for its customers.

In the event of a problem, the user of any Telsis system rings into Telsis's own Multi-Call system and gives his identification. This initiates a radio paging alert to the appropriate on-call person in the service department. Should he not respond within one hour, one of the directors of Telsis is paged. The advantages of this are two-fold: the customer is assured of good service and, equally important, the directors of Telsis are certain that customers will receive this service.

This is an illustration of providing the support that is needed by the customer. With quality service becoming an increasingly more vital factor in winning and keeping business, voice processing will be seen increasingly in the front line.

Telsis develops and manufactures the systems that it supplies as well as providing full customer support. Some of its customers operate bureau services to absorb their own spare capacity (in much the same way that computer users in the 1960s offered their spare capacity).

This will no doubt be a way for companies to obtain voice processing facilities for a specific task or to "dip their toes in the water" before investing in their own equipment.

There is a pervasive sense of déjà vu - and voice processing bureaux may emerge in the 1990s since every growing market will attract a variety of new players. In fact, it already has. Tardis Direct is already a voice processing service provider to industry.

Adrian Morant



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Around the clock with voice processing Key to new services



long-distance telephone charges. Earlier this year, British Telecom Mobile Communications and VoiceCom Systems Inc, a voice messaging group in the US, joined forces to introduce an international messaging service in the UK and Europe. This will obviate that limited "time window" that is such a barrier to international communications.

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Another area is telemarketing where last year \$49bn was spent by US business. In the UK, between 1986 and 1988, the proportion of British companies using telemarketing jumped from 26 to 51 per cent. Together these provide the facility for promotions and competitions, with opportunities for market sampling, opinion polls and list-building.

The scope now is enormous and arguably limited more by the imagination than the technology. As Mr Jeff Wilson, managing director of Telsis, which claims to have a 30 per cent share of the UK audiotext market, points out: "In western Europe and throughout the English-speaking world, at least, people are richer and busier than they have ever been; and they all want to make the best use of time so that they can achieve more and enjoy more."

"What's happening now in voice processing will take them into a 24-hour world, with information and services on tap, round-the-clock shopping and customer care, effective communication by telephone across personal and geographical time zones."

borne by either the user or the information provider. Where the user benefits he is charged the premium rate for the service with the revenue being divided between BT and the service provider.

In the other hand, a tour operator, say, would be most willing to pay for the service as part of his marketing budget.

Telsis supplied a large Hi-Call system for the Cricketcall Service, which provides simultaneous commentary of all big county cricket games. This is, of course, a premium rate service.

Mr Wilson stresses: "Every new technology - especially a highly specialised sophisticated technology like voice processing - needs money. The enterprise of premium rate service providers is bringing that money into the industry and helping to finance technical solutions in all of the main areas of activity."

He envisages the introduction of flexible charging, so that people with special interests can pay an appropriate rate for dial-in services dealing with their own area of interest. This will lead towards narrow casting (as opposed to broadcasting) to cater for special interest groups.

Companies will apply their ingenuity towards the adoption of voice processing because it will provide improved service while reducing costs. Users will embrace it because the difficulty of obtaining service or virtually any form of individual attention is the single universal problem that is the bane of both business and private life.

This is exacerbated by the trend towards shorter working hours, and longer leisure hours, which result in a shorter time window during which it is possible to make business contact.

Furthermore, during this smaller time window there are even more people trying to get through. With 24-hour service operations, the window becomes an irrelevance and call traffic can be much more evenly distributed.

The enabling technology is voice recognition. It provides true universal access because, as yet, the push-button tone dialling telephones which would be otherwise needed to make best advantage of the systems are not widely available in this country. The low-cost tonepads which are placed over the mouthpiece of an ordinary pulse telephone to convert it to a tonephone do provide a solution but are obviously not the most convenient solution.

Voice processing involves audiotext, voice messaging and transaction processing

pronounced or out of its vocabulary.

Speaker dependent speech recognition is another important technique. At the beginning of a call the system is trained to recognise the caller's voice. This is often used for leisure services but can be expected to be more widely

used as technology advances. In an example of "putting one's money where one's mouth is," Telsis has started to use its own voice processing systems to provide 24-hour service cover for its customers.

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Adrian Morant

Deregulation and Joint Ventures in International Telecommunications Strategies. Royal Garden Hotel, London, September 15, 1989. As telecommunications markets develop and are liberalised, joint ventures are increasingly seen as an optimal strategy for expansion. The deregulation trend is set to continue with the creation of a Single European Telecommunications Market in 1992 and deregulation of the mobile spectrum in some countries. Regulatory barriers may not be completely removed however... How do companies operate within and influence the changing regulatory scene? What are strategic alliances forming? What issues do joint ventures raise for regulation? Experts will examine these questions and also: Regulation in National and International Markets; The Rationale for Joint Ventures and Collaborations; Strategies of Major Players.

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Technology in depth

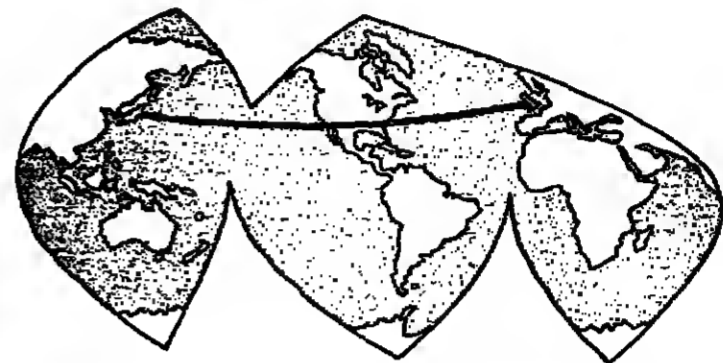
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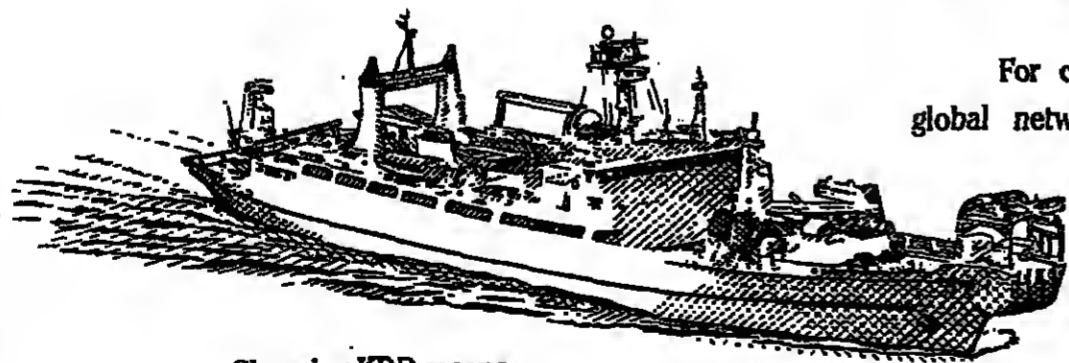


(Take our digitally-encoded word for it)

reaching a depth of over 8,000 metres - a fact that warrants an entry in the Guinness Book of Records.

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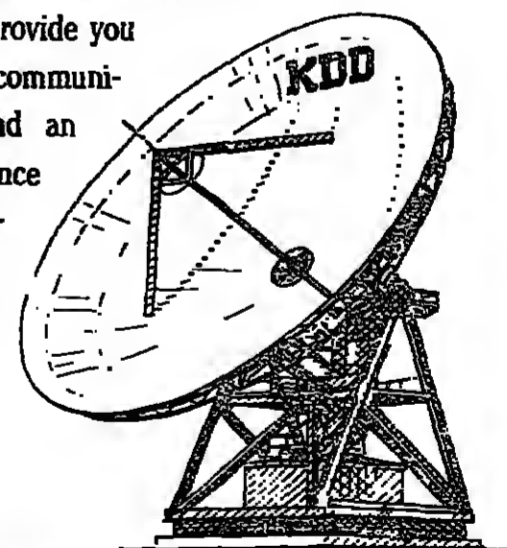
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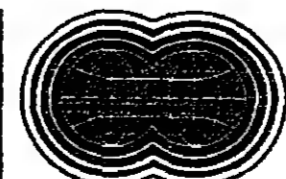
The combination of optical-fibre cables and ISDN has already opened up a new era of high speed, high volume communications with digital technology (whatever happened to that voice saying "lines from London are engaged, please try later?") But it's not just

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INTERNATIONAL TELECOMMUNICATIONS-12

The European Commission faces a dilemma, reports William Dawkins from Brussels

Moves to break monopolies' stranglehold

THE CRUSADE to break public monopolies' stranglehold over the provision of telecommunications equipment and services in the EC has embroiled the European Commission in a revealing dilemma.



Sir Leon Brittan insists: "Liberalisation and harmonisation go hand in hand."

Market liberalisation is the dominant theme of the Commission's design for a free internal market in this traditionally cossetted and protected industry. In that sense it is pushing with - and in some cases very much ahead - of the very different styles of telecommunications industry deregulation being pursued at different speeds in the UK, Germany, France and Italy.

The outcome of the broader debate on telecommunications will be crucial because EC legislation will have a deeper and more pervasive influence on this sector post-1992 than in almost any other industry. This is partly because Community competition rules give the Commission unusual - and controversial - powers to issue laws on public services monopolies like postal and telecommunications authorities (PTTs) without going through the normal process of consulting member states.

the process, it has landed up in the European Court of Justice, accused of overstepping its powers by France, Italy, Belgium and West Germany. At the same time, the Commission places the highest importance on telecommunications as the basic business infrastructure of the future, a market that it estimates will be worth up to 7 per cent of the EC's Gross Domestic Product by the end of the century (as against around 3 per cent today), by which time more than 60 per cent of European jobs are expected to depend directly and indirectly on telecommunications.

One senior Commission official likens the importance of the task to a contemporary equivalent of building railways across early 19th century Europe. Brussels' strategy for opening the EC telecommunications market to free competition is laid out in the Commission's 1987 green paper on the subject. Most of the proposals in that wide ranging document are now either in the early stages of being put into effect or on the table. They include the ending of exclusive rights to supply terminal equipment; the liberalisation of value added services, followed later by deregulation for basic data transmission; the technical rules for free access to networks; the separation of telecommunications authorities' regulatory and powers from their operating roles; the creation of a European Telecommunications Standards Institute (ETSI); common standards for satellite communications and for the broad band telecommunications of the future.

The main action so far has centred on the related areas of telecommunications equipment manufacture and the provision of services through public networks. Historically, PTTs have tried to keep the two sectors together to guarantee a reliable - and incidentally profitable - source of equipment to plug into the networks they run. The Commission has different ideas.

Its first onslaught was early last year, when Brussels made use of the rarely tested Article 90 of the Treaty of Rome, to issue its telecommunications terminals directive, without going through the usual months-long process of consulting member states. This tactic provoked fierce criticism from several European Governments. But member states stopped short of trying to block the scheme because they generally liked its aims, despite their anger at the Commission's style. The equipment directive obliged member-states to start legislating by the middle of this year for the free supply of modems, PBX private exchanges and subscribers' second and subsequent telephones.

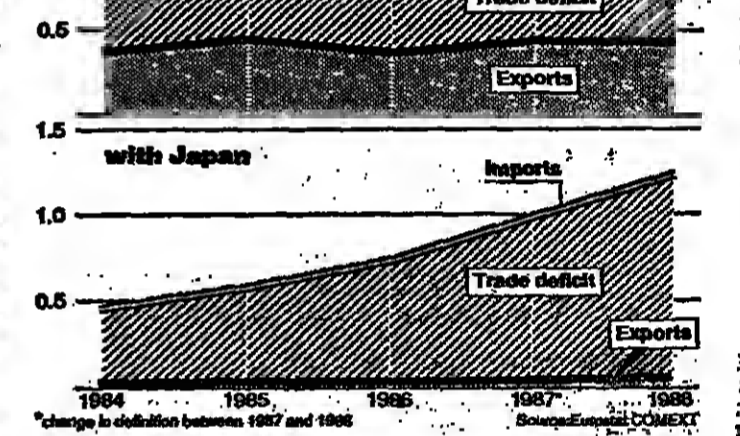
This first stage of liberalisation covers roughly half the EC's Ecu17.5bn telecommunication equipment market. National legislation is to be tabled by the end of this year.

The outcome of the EC telecommunications debate will be crucial

to liberalise sales of telex terminals, data transmission equipment, mobile telephones and satellite receiver dishes. The final phase, for national legislation to get started by the end of next year, covers subscribers' first telephone sets. This is the hardest part for PTTs, among which all but France and the UK reserve the right of supply of first telephone sets for themselves. Much to member-states' annoyance, the Commission used Article 90 again at the turn of the year issue a much more important directive, to liberalise the Ecu64bn telecommunications services industry. Equally, it was a more provocative step in political terms, because several member states, like Italy, France, Spain and Greece have serious doubts about the directive's content as well as its legal approach. They want indefinitely to keep competition out of the provision of basic computer data telecommunications - like the transmission via telephones of information from one desk top terminal to another - a small but very fast growing part of the service.

same reason freed both basic data and Vans during its own telecommunications deregulation. Value added services will, accordingly be due for deregulation when the directive comes into force on or soon after April 1990.

The final date depends on member states' progress in agreeing the equally controversial ONP scheme, which by contrast is going through the normal EC decision making processes. Sir Leon Brittan, the Commissioner for Competition, introduced this element of flexibility at the last minute to try to appease member states' aversion to the Article 90 strategy. Normal voice telephone services, meanwhile, will be left under PTTs' sole control, following the West German and French model of cautious liberalisation, rather than the UK option of a second independent telephone service, as provided by Mercury. Telex will also continue to be a public monopoly on the grounds that it is a declining market that deserves protection in the public interest. Equally, PTTs will continue to have sole responsibility for providing the physical networks themselves, such as traditional telephone lines, fibre optic links, micro-wave and satellite links, radio telephone and cable television. This is again in line with the trend in most European countries, except for the UK, to maintain network monopolies. The terminal equipment and services plans are the central parts of the Commission's telecommunications policy. Around them hangs a host of supporting measures, the general thrust of which is to smooth out the fragmentation that puts the EC market at a perennial disadvantage against its US and Japanese equivalents. These include plans, awaiting EC Governments' approval, to extend existing rules on free public procurement to telecommunications. Another obliges member-states to guarantee free market access to any telecommunications terminal made to EC technical requirements, in contrast to the present situation where equipment needs clearance by 12 individual national standards authorities. The big test - as with a great deal of EC internal market legislation - will come when Governments actually have to enforce the rules, bringing some of their face to face with the hard fought interests of their national PTTs.



OUT ON HIS OWN. WITHOUT A VODAFONE. OUT OF TOUCH. WITHOUT A VODAFONE. OUT OF SIGHT. WITHOUT A VODAFONE. OUT OF HEARING. WITHOUT A VODAFONE. OUT OF REACH. WITHOUT A VODAFONE. OUT IN THE COLD. WITHOUT A VODAFONE. OUT OF BUSINESS?

BE IN WHEN YOU'RE OUT. VODAFONE.

Radical reform of the Bundespost West Germany now a leading advocate for more liberalisation

WEST GERMANY was, in the past, seen by advocates of telecommunications liberalisation as the leader of the enemy forces. Outsiders complained that telephone tariffs were excessive, that the Bundespost took every opportunity to stifle competition - and new services therefore failed to develop. Moreover, in the international arena, West Germany was regarded as an obstacle to change. Now, however, Germany is thought by many to be on the side of the angels. After years of debate, the country's new law for reforming telecommunications came into effect at the beginning of this month. Under this law, the door to Europe's largest telecommunications markets is being half-opened to competition. The Bundespost is also being restructured with the aim of making it less bureaucratic and so more responsive to its customers. This change in mood is perhaps best illustrated by the fact that, far from being an obstacle, Germany is now a leading advocate of further liberalisation throughout the European Community. Along with Britain, it is the ring-leader of the countries supporting EC's Green Paper.

shake-up German telecoms. Observers predict that the monopoly services will account for only two-thirds of the Bundespost's revenue by the middle of the next decade - down from about 90 per cent now. When the private sector is added in, the effect will be that only half Germany's telecoms market will be covered by monopoly rights. This is because the non-monopoly areas are growing very fast. The most exciting opportunities are in mobile and data communications. On the mobile side, the German Government has decided to license a second operator in competition with the Bundespost for cellular communications by the end of the year. This contest has already drawn a glittering cast of applicants from across the world. The winning consortium has the prospect of being granted one of the most lucrative franchises ever handed by a government to the private sector. In data communications, the main opportunities will be in leasing these from the Bundespost for basic and value-added services. Because Germany is still poor in these advanced communications services, there is great potential for private operators to innovate, outwit the Bundespost and tailor services to individual needs. Nevertheless, doubts remain as to whether the new regime, which promises free competition in these areas, will be able to guarantee it in practice. One concern is that the dividing line between monopoly and non-monopoly areas is fuzzy. This could allow the Bundespost to expand the definition of its monopoly to include many of the markets which would otherwise be attractive to private operators. In theory, only basic voice telephony will remain a monopoly. The Bundespost might be expected to win out over private operators because it will have excellent access to the minister's ear. Critics would have preferred the institution of an independent regulatory body, on the lines

of the UK's offer. Another key purpose of the Bundespost reform is to revamp its internal bureaucracy. This should make it more efficient, dynamic - and so lead to lower costs. 'The door to competition is being half-opened' However, given that both privatisation and competition on the basic networks are excluded, West Germany has few instruments with which to achieve the necessary change in culture. Instead, it is relying on performance-related pay to provide the incentive. Even this scheme, though, has been watered down by political controversy, leaving the impression that this is an example of using a nutcracker when a sledge hammer is required. A further element is the division of the Bundespost into three businesses: Telekom, Postdienst, the postal service, Postbanken. The idea was that each would be run as a separate commercial enterprise without political interference. However, this separation has not happened as cleanly and neatly as many wished. The three businesses will still be responsible to a common directorate and, parallel to this, will be a special infrastructure council, made up of political appointees, which will have a major say over the matters such as new investment and tariff charges. As a result, some critics doubt whether Telekom will be run on a genuinely commercial basis. Even so, the Bundespost reform is for Germany a radical step. And the country can claim to have one of the most liberal - if not the most liberal - telecoms regimes in Europe.

Hugo Dixon

INTERNATIONAL TELECOMMUNICATIONS-13

Top 50 countries by base of installed main telephone lines

Table with 4 columns: Rank, Country, Main Lines, Per cent of World Total. Lists top 50 countries including USA, Japan, USSR, West Germany, France, UK, Italy, Canada, Spain, South Korea, Brazil, Australia, Chile, Netherlands, Sweden, Taiwan, Mexico, Switzerland, Greece, Belgium, India, Argentina, Austria, Turkey, Yugoslavia, Denmark, Poland, South Africa, Finland, Czechoslovakia, Norway, Hong Kong, Colombia, East Germany, Portugal, Iran, Romania, Bulgaria, New Zealand, Venezuela, Israel, Saudi Arabia, Egypt, Malaysia, Thailand, Singapore, Hungary, Ireland, Iran (1985), Algeria.

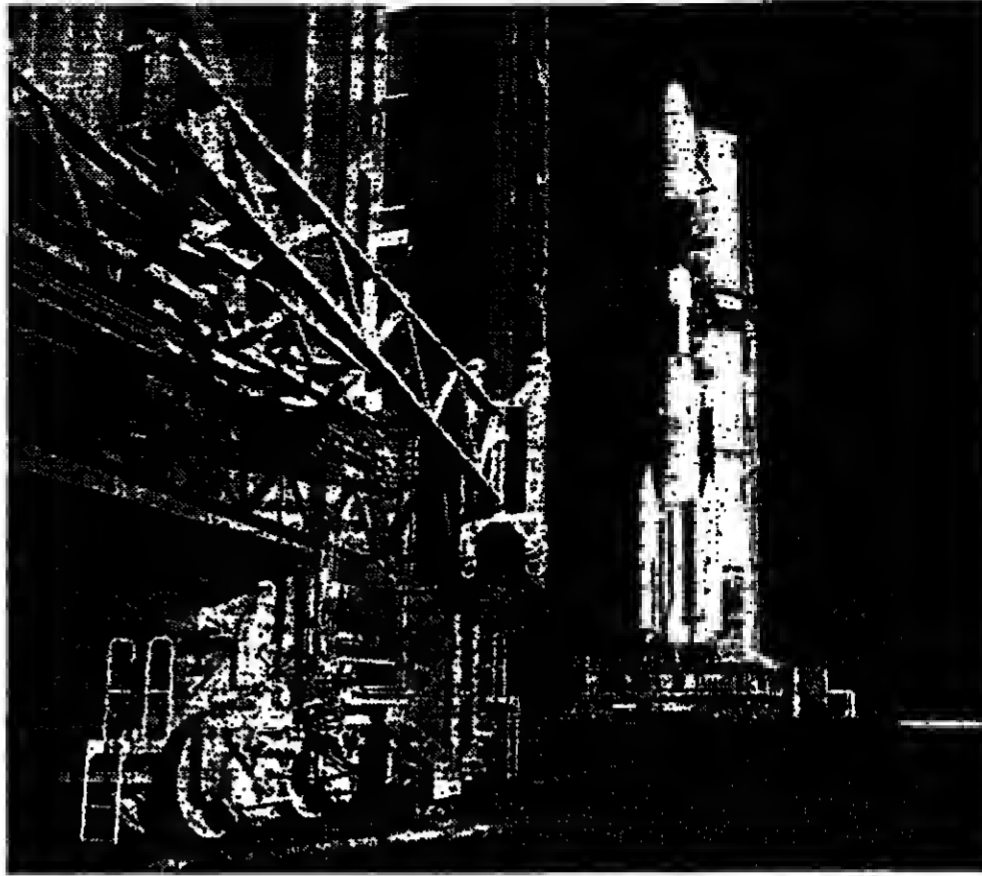
French telecommunications system

World's most highly digitalised network

AT THE beginning of 1988, the French telecommunications authority, previously a ministry division known as the Direction Générale des Télécommunications, or DGT, changed its name to France Telecom.

In the mind of Mr Gerard Longuet, the minister for posts and telecommunications in the right wing administration of Mr Chirac, the name change symbolised a transformation into a more commercially oriented organisation.

Mr Paul Quilès, who replaced Mr Longuet when the socialist government of Mr Michel Rocard took office a year ago, has a markedly less enthusiastic approach to the problem of deregulating the telecommunications market than his liberal predecessor.



The West European Ariane space rocket carrying a European satellite and Japan's first commercial telecommunications satellite, pictured at Kourou, French Guiana.

While the traditional telex continued to expand steadily to total 131,000 lines at the end of the year, Telex, the international electronic mail system opened in 1985, tripled last year and now numbers 10,000 subscribers.

Rapid growth has also taken place in the mobile communications market, where France Telecom's monopoly has been opened up to competition.

This has been helped by opening access points overseas in countries like the US or, more recently, Japan, to enable companies to link up their foreign operations to the Minitel.

Equipment manufacturing in Italy

New bridgehead planned into European markets

A FOREIGN diplomat based in Rome had some difficulty in having a telephone installed in his apartment after arrival - the waiting time is usually measured in months, rather than weeks.

In the following days, his telephone rang repeatedly with callers seeking repair-work for their motor cars.

The sudden non-functioning of their telephone line.

On the telephone line, the Italian government has been doing its best to strengthen a weak international hand.

World's top 20 telecommunications equipment exporting countries

Table with 4 columns: Rank, Country, Value US \$ million, % of top 20 countries. Lists top 20 countries including Japan, West Germany, United States, Sweden, Canada, France, South Korea, Belgium, Taiwan, United Kingdom, Hong Kong, Netherlands, Finland, Italy, Singapore, Switzerland, Norway, Denmark, Austria, Spain.

Source: TRC and government statistics

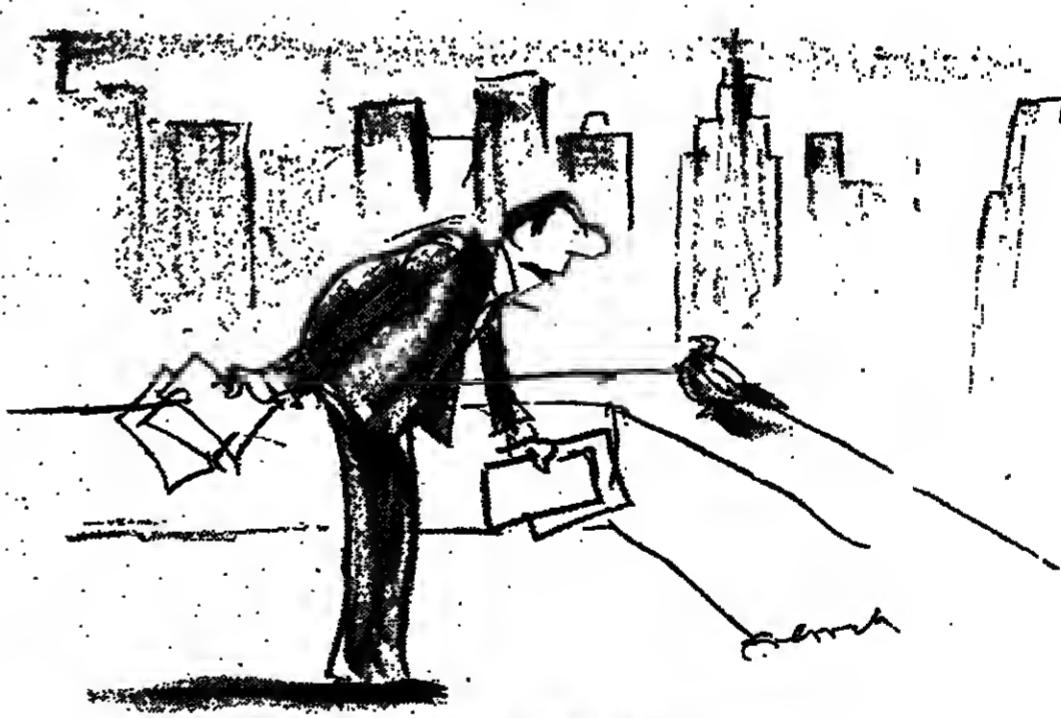
the sudden non-functioning of their telephone line.

On the telephone line, the Italian government has been doing its best to strengthen a weak international hand.

National hopes are now resting on the deal signed in June between Italtel and AT&T of the US

The Italtel-cable interface works internally well, one does not seem to have to dial an overseas number more often than one does, say, in London.

On the private telecom front, Italtel is to market in Italy AT&T's Systems 75 and Definity products and the two companies are to set up a single sales company for western Europe under AT&T control.



"What do you mean, you're tired?"

These days some people have to admit that their present means of communication have reached their limits. This is especially true for business dealings across borders and time zones.

Deutsche Bundespost

IN. WITH A VODAFONE.

AVAILABLE FROM MARTIN DAWES COMMUNICATIONS. DIAL 100 AND ASK FOR FREEPHONE DAWESPHONE.

INTERNATIONAL TELECOMMUNICATIONS-14

The US has seen many changes since the breakup of AT&T in 1984, reports Rodrick Oram

Competitive ding-dong among the Bells

FIVE YEARS after the break-up of American Telephone and Telegraph and the start of deregulation of US telecommunications, three distinct types of player have evolved each with different and fast diverging strategies.

AT&T's local telephone operations across the country which constituted the dominant Bell system were spun off into seven "Baby Bell" regional holding companies. AT&T was left to face fiercer competition in long distance services but was allowed to enter new and unregulated businesses.

This set a new stage for the three types of companies: the regional Bells, the long distance carriers and the independent non-Bell companies some of which can offer both local and long distance service through a quirk of regulation.

The regional companies, hardly babies since each of their annual revenues range from \$10bn to \$15bn a year, have differed on diversification. At one end of the spectrum, Ameritech has stuck closely to providing telephone service in five midwestern states. At the other, US West and BellSouth, for example, have pushed aggressively into overseas ventures.

Ameritech's strategy has reaped the highest reward so far. The Chicago-based company achieved an annual return on equity of 15.4 per cent in the financial year 1986-88 against an average of 14.1 per cent for the other six Baby Bells.

Last year its net profits rose 4.1 per cent while BellSouth's was essentially flat even though it serves an economically vibrant region of the country. Ameritech has had some misfires with its own strategy such as losing some \$50m buying a software company in 1986 and selling it in 1988. But it has also prospered from, for example, helping to pioneer cellular telephone services with Chicago the first US city served.

Internationally-minded Baby Bells such as BellSouth argue that telecommunications is increasingly a global business so their future lies in learning how to do business abroad. They see foreign markets as

places to sell their existing expertise and to learn new skills which they are not allowed to offer yet in the US.

BellSouth, for example, sells telephone equipment and services in Shanghai, cellular service in France and paging in

Competition has pushed down rates by nearly 50 per cent in the past five years

the UK, all businesses it pursues in the US. US West's foreign activities include cable television joint ventures in the UK, a business it hopes regulators will eventually allow it to develop in the US.

The regional boundaries between the Baby Bells began to breakdown as soon as they were drawn. Ameritech, for example, competes against Southwestern Bell to supply cellular services in Chicago. Further down the road, the

Baby Bells may be allowed to offer long distance services.

AT&T is aware of this possibility and, pressed hard by current long distance competitors, has made huge strides in turning itself from a complacent, bureaucratic, regulated utility into an aggressive corporation responsive to customers and driven by the profit motive.

Its share of the long distance market has fallen from roughly 80 per cent pre-breakup to about 75 per cent, with MCI Communications and US Sprint making the biggest inroads followed distantly by a gaggle of small systems and resellers of services.

Competition has pushed down the long distance rates by nearly 50 per cent in the past five years and new types of services have proliferated. More importantly, AT&T, MCI and Sprint have invested heavily in fibre optics with benefits in higher quality and lower cost of transmission.

MCI and Sprint are reporting

rapidly rising sales and profits now that their investment programmes are behind them. They have both targeted large corporate users with notable success at winning business from AT&T.

AT&T has in the past year or so has started to fight back far more effectively. It got a big lift earlier this year when the federal government changed the way it regulates AT&T. Instead of being limited to a maximum return on assets, it has broadly speaking only to comply with price caps. This will not only increase the flexibility of its pricing practices but also allow it to increase its profits by driving down costs. Thus, the new system is a real incentive to AT&T to become even leaner and meaner in the marketplace.

The Federal Communications Commission, the industry's regulatory agency, is also planning to avert regional Bell holding companies to the same system. Although this

would significantly ease the regulatory burden on them at the federal level, they will still suffer from regulations at the state level which in a number of cases are cumbersome.

At the federal and state level, AT&T and the regional

Regional boundaries between Bells began to breakdown as soon as they were drawn

Bells are fighting to roll back what remains of regulation. AT&T wants to enter the electronic publishing business. At the moment it can only transmit information generated by independent data bases and other interactive services.

A number of the regional Bells are lobbying for the right to transmit cable television signals and to own cable television companies. In the forefront of the fight is Pacific Telesis, the California Bell

holding company, which is seeking approval for its purchase of a majority of a small Chicago cable company.

Permission to enter the cable business would open the door to a wide range of new services which in turn would finally make economic the provision of fibre optic services into homes.

Last but far from least are the independent telephone companies. Contrary to a common misconception, the US telephone industry is not entirely monopolised by Ma Bell or her progeny.

Though the independents have only a small share of the overall market, there are more than 1,400 of them. Thanks to the large and growing degree of deregulation they are growing in importance and number. They range from companies serving only their local community up to the likes of GTE which provides 14.4m lines in 31 states or United Telecommunications which serves nearly

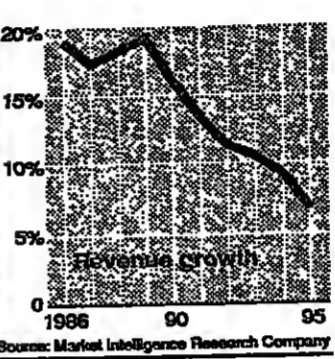
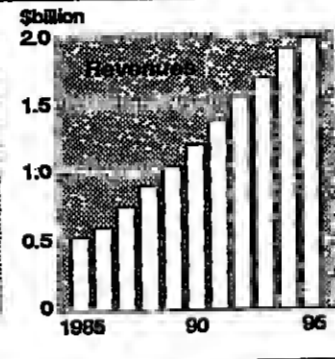
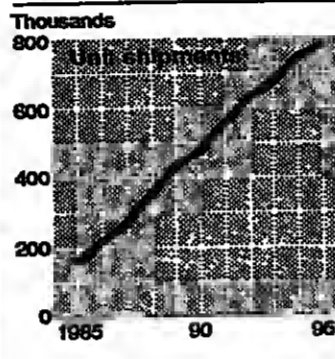
4m subscribers. US Sprint is owned 80 per cent by the latter and 20 per cent by the former. This sector also includes the hot cellular telephone companies. The country is divided into operating areas with two licenses in each - one is given to the local regional Bell and the other to an independent.

In some cases the independent license has been taken over by a competing Bell company, as in Chicago. But elsewhere a number of players have built up large stakes. The largest company in cellular industry in terms of population in its license areas is McCaw Cellular Communications. British Telecom was attracted by its growth prospects, and took a 20 per cent stake in McCaw earlier this year for \$1.37bn.

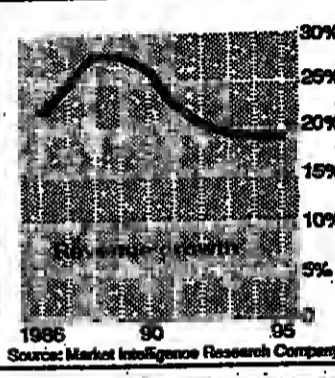
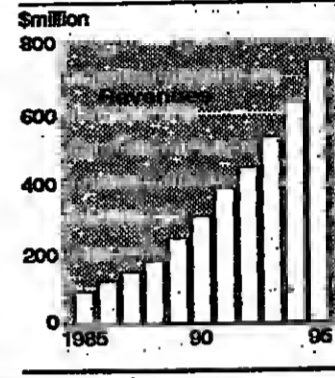
The far bigger challenge for the likes of McCaw, now that they have amassed territories, is to vastly increase the subscriber base. The cost of equipment is falling fast but the cost of service is still high and the quality patchy. Although cellular could be the telecommunications story of the 1990s, the industry has a long way to go before it can consider itself a true rival to traditional wire-based telephone services.



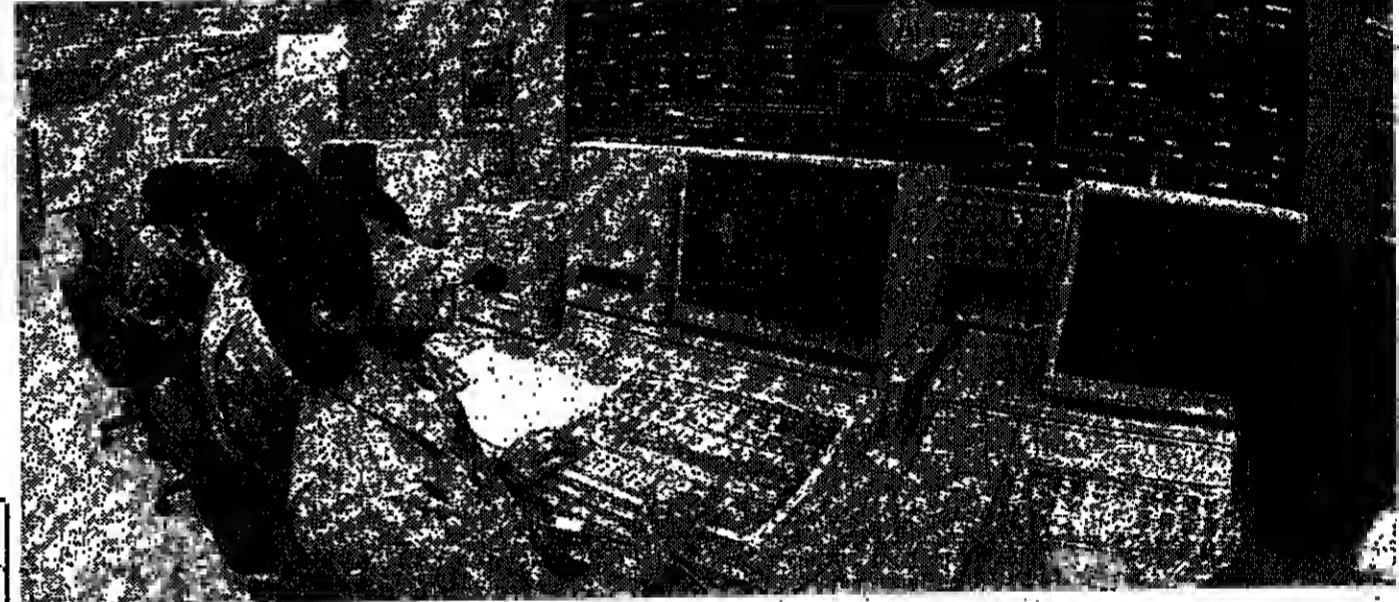
US multiplexer market forecasts



East Asian multiplexer market forecasts



■ In the US, (left), customers examine a range of new telephones at a Bell Phonecenter at a Sears department store.
 ■ In Japan, (right), contractors test communication equipment in the control room of the space chamber at the Tsukuba Space Centre, Ibaraki. Telecom equipment production in Japan totalled ¥2,114bn in the financial year 1987-88. Exports amounted to ¥678.3bn while imports totalled ¥49.6bn. Exports to the US in 1987 reached ¥259bn, up 10.9 per cent from the previous year, with imports from the US declining 0.3 per cent to ¥61.4bn during the same period.
 Picture by Ashley Ashwood.



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leased lines, private or public networks, satellite links or fiber optic cable connections, we're ready with our European partners to develop the most efficient and cost-effective solutions to your communication needs. Bring a new dimension to your business with France Telecom. Where tomorrow's Europe is taking shape today.



Access to the Japanese market still agitates foreign competitors

Open approach to tackle unresolved trade imbalance

ON THE cover of the new Ministry of Post and Telecommunications Japan market outline pamphlet, the word "open" in huge boldface capital letters crystallises the theme promoted in its 45 pages.

Furthermore, a table showing recent results of telecom market opening measures gives the impression that foreign companies, mainly from the US, are making substantial inroads into the Japanese market.

One name, Motorola, crops up in enough places to leave no doubt that it does not expect to be overshadowed by the likes of IBM, Hughes or AT&T.

Motorola, a large electronics equipment maker, operates through its affiliate, Nippon Motorola. It sells pocket pagers and cellular telephone devices to Nippon Telephone and Telegraph (NTT), central equipment and pagers to Tokyo Telemessaging and helps operate private MCA trunk systems throughout Japan.

Daini Denden, part of the Kyocera Group, an incipient competitor to NTT, plans to use the Motorola system for its cellular telephone services in the near future.

The situation, however, is far from clear. The US took Japan to task in the June telecommunications trade negotiations following Motorola's accusations of unfair trade practice under the US Omnibus Trade Bill.

The MPT pamphlet quotes Mr George Schultz, US Secretary of State, on "a remarkable success, substantially resolving all problems raised in the course of the MOSS (open market sector selective) discussions." It includes, as a primary result of the 1985 talks, an item that confirms a revision of cellular phone technical standards in order to accommodate the Motorola system.

Problems remain in spite of this summation. Among the MOSS results was an agreement to do a full review of telecommunications legislation and, in particular, to abolish the distinction between special, and general, type two telecommunications business. A US government official says Japan agreed to abolish the distinction

but later reneged. Transparency of frequency allocation has been another sticking point since MOSS.

Market data supplied by MPT suggests another reason why telecom market access continues to agitate many potential foreign competitors. Telecom equipment production in Japan totalled ¥2,114bn in the financial year 1987-88. Exports amounted to ¥678.3bn while imports totalled ¥49.6bn. Exports to the US in 1987 reached ¥259bn, up 10.6 per cent from the previous year with imports from the US declining 0.3 per cent to ¥61.4bn during the same period.

The value of wire communications equipment exports by Japan in 1987 totalled over

The US took Japan to task in the June telecommunications trade negotiations

competitors like Daini-Denden and Nihon Telecom of the Japan Railways Group are starting to eke out small but fast-growing niches in the telephone service market.

In the battles that are just getting under way, NTT has tremendous resources. Although Mr Stern says European companies have found entry to the Japan Telecom market considerably eased by the US-Japan trade negotiations, the main barrier for small and medium-sized companies is often money. Nippon Motorola will have to spend about ¥10bn to set up an infrastructure that can handle its mobile telephone operations in the Tokyo-Nagoya region.

"Motorola was first so we can't complain because they are prepared to spend," Mr Patrick Carroll, a technical adviser to MPT on European telecom standards, says. However, Mr Carroll likens the Motorola approach to gaining access as "blackmail" and says a company with less financial and political resources would have been rejected.

For companies bold enough to persevere, the prospects are encouraging. Besides gaining

the cellular telephone rights to ¥24bn with imports, including payments for satellites, at only ¥38.2bn. Even more lopsided was the export total of ¥269bn for transmission equipment while less than ¥1bn was spent on imports.

In the face of the imbalance in the telecom trade with Japan, foreign companies seem more willing to resort to the use of political pressure. Japanese trade officials have admitted to their US counterparts that without pressure from the US government certain market demands made by US companies would not even have been considered.

This was certainly the case two years ago when Cable and Wireless, the UK telecoms group, summoned up political clout from the highest levels of the British Government to get the Japanese to honour their pledge to open the international telecoms field to foreign companies.

International Digital Communication (IDC), the consortium in which C&W is a principal shareholder, won a license after a long battle and began private line operations last spring. It is one of two carriers due to start public service in the autumn in competition with Kokusai Denshin Denwa (KDD).

Mr John Stern, vice-president of the American Electronics Association says one problem that trade negotiations have not yet solved is to what extent the Japanese government is in business to adjust market access based on projections of market growth.

A US carrier applying for a license to operate a communications satellite in Japan was refused market access on grounds of "excessive competition." Mr Stern says "excessive" in Japan has the same meaning as "real" competition in the US.

Resistance by Japan's telecom establishment toward new foreign competition is not monolithic. "Bloody turf wars" between officials at MITI and MPT have raged ever since 1985, US officials say. That was when the privatisation of NTT and steps to open the market aimed at both NTT and KDD

went into effect to mark the start of telecom reform in Japan.

Mr Stern says MITI has relaxed its tendencies to regulate market access to foreign business. While senior management at NTT, Japan's largest company, is sincere as regards foreign procurement, junior level employees are often trained to favour domestic-made equipment and carry an innate bias against foreign procurement, he says.

Besides having overseas procurement offices in New York, Los Angeles, London and Geneva, NTT has also put on government seminars in 22 cities in five countries since 1985.

In the face of the trade imbalance companies seem more willing to use political pressure

NTT's overseas activities must be a refreshing counterpoint to the domestic scene, where the MPT is considering breaking up the company along the lines of AT&T of the US. In addition, new domestic Tokyo, Nippon Motorola has gained carte blanche to push its third-party radio communications service for parcel delivery up to a value of ¥200bn, with production of radio communications equipment for mobile stations expected to show an average annual rate of increase of 10.3 per cent up to 1992.

In the wake of the June trade negotiations that focused on Motorola's telephone market access complaint, US officials say both sides remain somewhat dissatisfied. While a more open market will obviate the need for pressure tactics, one US government official says it is difficult politically. "If they dig their heels in on everything, we have to show resolve too."

"You always have to pay a price; you just hope you gain more than you lose," he says.

Chris Perry

INTERNATIONAL TELECOMMUNICATIONS-15



China has less than one phone per 100 of its population.

CHINA

A giant market

CHINA'S highly inadequate telecommunications system, with less than one telephone per hundred of its population, is the largest stumbling block to its development. It has been targeted as one of the main areas by the Peking authorities in their ambitious economic reform programme which will carry China into the 21st century.

Expenditure on the modernisation of the telecommunications system between now and 2000 is likely to be more than \$21bn, and this has drawn companies from all over the world looking for a slice of the action in this vast and relatively untapped market.

Like most other corporate dreams of China and its billion consumers, telecommunications companies are finding the going tough - the huge profits remain more imaginary than real.

Intense competition from Japanese, American and European companies has cut margins to the bone, with short term profits being sacrificed for long-term positioning in the market.

With many soft loan packages temporarily frozen by governments in protest at the crushing of the democracy

The political crisis has cast a shadow over international co-operation, says Michael Marray

movement, and China suffering from an acute foreign exchange shortage and general economic problems, the big pay off seems to be receding into the distance.

However, the potential remains impossible to ignore. According to the Ministry of Posts and Telecommunications the plan is to reach 2.5 telephones per hundred head of population by 2000, from 0.75 per one hundred at present.

Even this seemingly modest target, compared to 50 or 60 per hundred in developed countries such as Japan, the US and European countries, will require a vast commitment of manpower and resources.

The overall national plan, which is being centrally co-ordinated by the ministry is to link up the country's provincial and municipal centres with a digitalised long distance switching and transmission network. Paralleled with this, each provincial authority is responsible for investment in and development of its own systems internally, though nationally consistent overall specifications must be met.

omment plans will be pursued through a combination of old and new technologies, with copper wire, optical fibre, microwave transmission and satellites all playing their part.

According to Mr Graham Bacon, regional managing director of GEC Plessey Telecommunications Far East, equipment suppliers eyeing what is undoubtedly a huge potential market must accept the need to manufacture in China if they are to be successful.

Mr Bacon said that foreign participation was accepted as crucial by the Peking authorities - given the huge research and development costs involved in modern telecommunications, and because technology transfer plays a leading role in winning business.

There are many joint venture factories in China producing telecommunications equipment, including one in Shanghai making optical cable which has been used to install the optical fibre communications system connecting the cities of Hefei and Wuhu in Anhui province.

Facsimile equipment is being produced. The fax is seen as having an important role to play as it is suited to transmitting Chinese script.

China is determined to press ahead with manufacturing for export, in order to generate much needed foreign exchange. This is also an incentive for the development of its international services. Most big hotels in the main cities offer international direct dialling, which is paid for in hard currency by visiting businessmen. But this service is not generally available, with long queues to book international calls.

All international calls, except those between Guangdong and Hong Kong, are routed through switching centres in Peking or Shanghai. Guangdong province has benefited greatly from its proximity to Hong Kong, where Cable and Wireless has been keen to help build up the infrastructure in southern China so as to generate more calls to and from Hong Kong.

Cable and Wireless is also a partner in the Asiasat communications satellite scheduled to be launched from China in April - though it may have to be launched from another country as a result of technology transfer sanctions against China on the part of the US.

Guangdong is at the front of mobile telephone systems in China, and along with Tianjin, Shanghai and Fujian provinces has adopted the total access communication system (tacs). With the help of western

International suppliers want to exploit the ending of a monopoly, says John Elliott

Puzzle for Hong Kong

HONG KONG, which is renowned for its free-wheeling open market economy, has a problem in the field of telecommunications.

Should it follow this entrepreneurial ethic and open its telephone and allied services to competition?

Or should it bow to the parallel ethic of rewarding efficiency, and allow Hongkong Telephone to renew its 60-year-old monopoly on domestic telephone voice services, which expires in 1995.

On balance, it seems likely that the British-influenced colonial government will follow the UK-led international liberalisation trend and decide some time next year that the monopoly should end in 1995.

But Hongkong Telephone - known locally as Telco - intends to mount a major defensive campaign when it starts talks with the government later this year.

In the meantime, international communications which would like to exploit an ending of the monopoly - notably British Telecom and US West, one of America's baby Bells - have been staking their claims in advance by linking up with rival consortia bidding for Hong Kong's first cable television licenses.

The government is now in the process of awarding 15-year licences for what is expected to be the largest cable television system in the world, potentially covering 1.5m homes. But the licences have a much wider significance because the

winner will lay a second duct network and will immediately be allowed to offer non-voice telecommunications services.

The new network will then be in place for domestic voice transmission after 1995 if the Telco monopoly ends.

Telco is part of Hongkong Telecommunications which is 75 per cent owned by Cable and Wireless of the UK. It has had a monopoly on the colony's local voice network for over 60 years and has radically improved its operations since the 1970s when its quality of service was poor, with long customer waiting lists and considerable staff corruption.

Under a regulatory system negotiated with the government, which is known as the

scheme of control, it does not charge for local calls. It says that this leads to a very high local calling rate which induces people to direct dial more profit-generating international calls than would otherwise be the case.

In 1987-88, there were 310m minutes of outgoing international calls, including 42m minutes of fax and data transmissions which was 92 per cent higher than the previous year.

These international calls are handled by Cable and Wireless (Telco receives a percentage) under a separate money-spinning monopoly agreed in 1981, which lasts till 2006, nine years after Hong Kong has reverted to Chinese sovereignty.

The scheme of control also imposes a profit ceiling of 16 per cent on shareholders funds. This generates Telco sufficient cash for extensive investment which this year will total HK\$2.1bn - a high figure in relation to a HK\$6bn book value of the network because obsolescent 1950s-vintage equipment is being progressively removed, with a target date of 1995 for the completion of a fully-digital system.

The current scheme of control ran out at the end of last year but was extended for 15 months, so it should be renegotiated soon.

This means that there are three imminent events which could change the regulatory face of Hong Kong's telecommunications. First, there is the

cable television contract with its allied potential for immediate non-voice telecommunications services. Then there will be the renegotiation of the scheme of control.

At the same time the government will negotiate with Telco about the new voice monopoly, probably using the new cable and non-voice licence holder as a stalking horse. The government estimates that 98 per cent of the phone market is catered for, which means that Hong Kong is saturated with what is generally accepted as a highly efficient telephone operation.

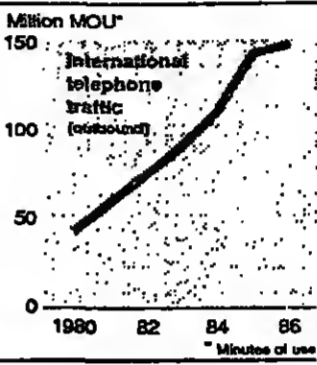
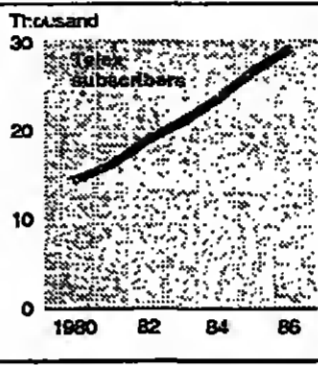
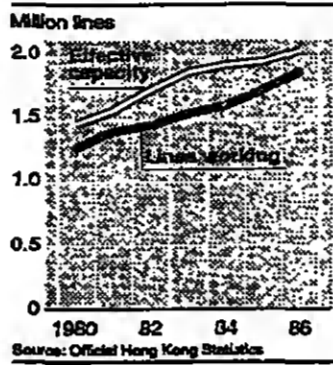
However, the government believes that there is considerable potential for developing a wide range of telecommunications services and that competition would help this to develop and cater for general growth.

The cable tv story started in 1984 when Telco suggested that it should carry the tv on its network. The government was interested, but competition soon emerged from Hutchison Whampoa, one of Hong Kong's four major Hong business empires controlled by Mr Li Ka-shing. Hutchison proposed laying a second network and this stimulated the government's interest in opening telecommunications up to competition.

Telco failed to persuade the government that, after some modifications, its existing optical fibre network could be used and that a second network was unnecessary. The government

Continued on page 16

Telephone services in Hong Kong



Source: Official Hong Kong Statistics

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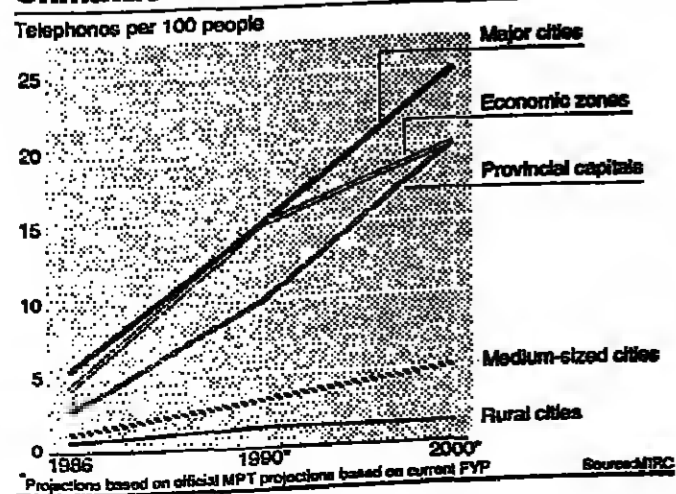
Competition among foreign suppliers is intense

"We are constantly striving to expand the traffic capability of China using Hong Kong," said Mr Nathan Hsu, marketing manager at Cable and Wireless for China. He stressed the optical fibre cable system inaugurated last year between Hong Kong and several cities in Guangdong, which markedly increased traffic capacity.

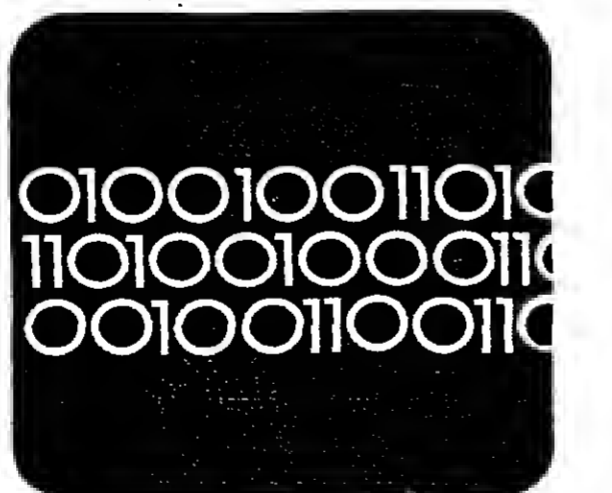
The link is used only to connect Hong Kong and Guangdong, though there is potential for Hong Kong to act as an extra channel for international calls out of China to the rest of the world, along with Peking and Shanghai.

Guangdong is at the front of mobile telephone systems in China, and along with Tianjin, Shanghai and Fujian provinces has adopted the total access communication system (tacs). With the help of western

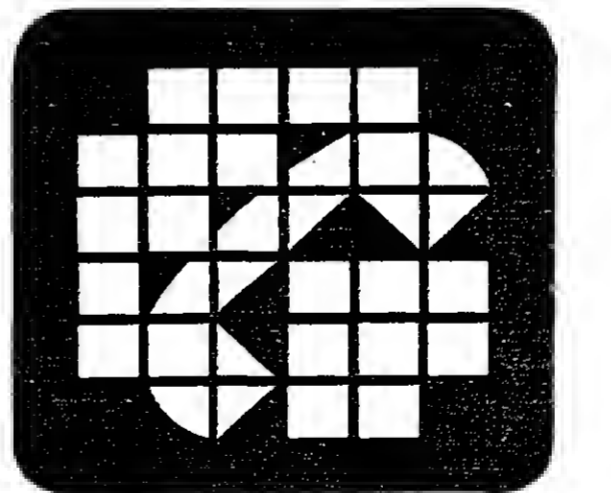
China: Local exchange services



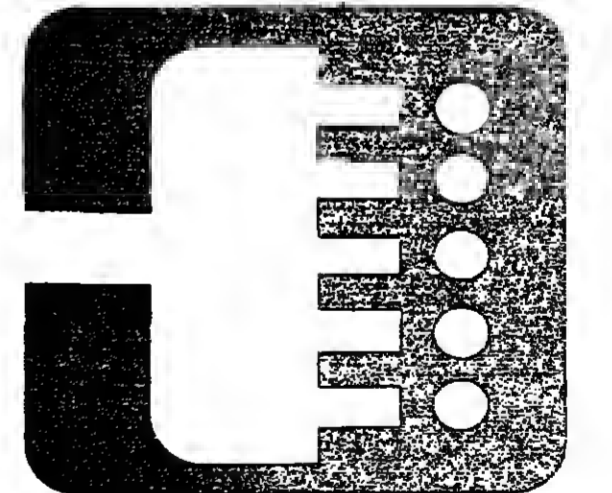
Projections based on official MPT projections based on current PYP. Source: BTIC



DATA COMMUNICATIONS



TELECOMMUNICATIONS SERVICES



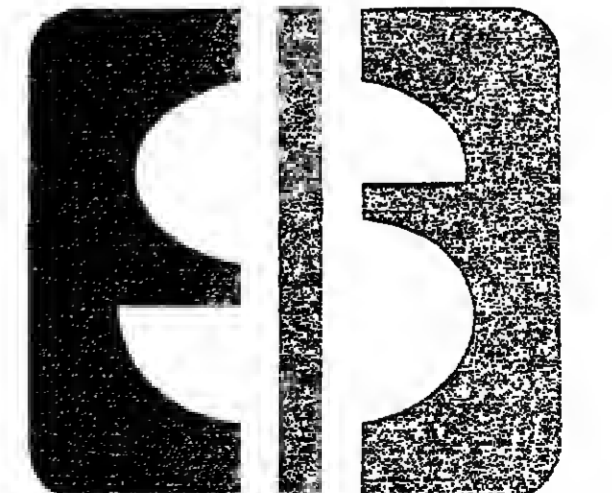
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INTERNATIONAL TELECOMMUNICATIONS-16

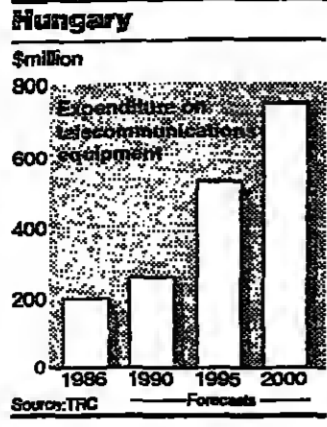
It can take up to 20 years to get a telephone line in the USSR, says Daniel Green

Eastern Europe: desperate to modernise

EASTERN EUROPE is desperate to modernise its telecommunications. Its citizens wait a long time to get telephones connected: 5 per cent of Hungary's population is on the waiting list, and in the Soviet Union it can take up to 20 years to get a line, although four years is typical in Moscow.

The Comecon capitals are not short of ambitious plans to change this. Yearly spending on telecoms is forecast to rise from \$9.8bn in 1986 to \$23.7bn in 1995. By then, the eastern bloc will be the third largest market after western Europe and North America, in that order.

Comecon countries are gradually easing trade regulations, particularly on the establishment of joint ventures. Attitudes are changing too: western business executives with telecoms deals in their briefcases speak of being welcomed with "warmest enthusiasm" and "open eagerness" by foreign trade ministries and telecommunications authorities.



Source: TTC

chronic shortage of hard currency, in many cases exacerbated by high levels of foreign debt and/or inflation. Counter trade is possible. But Pospolice of the US has sewn up Bulgarian wine exports, and would be exporters are likely to find themselves offered tobacco or scrap metal.

In spite of these obstacles, many western companies are penetrating deep into the virgin territory of the East. GPT, jointly owned by Plessey and GEC of the UK, has a joint venture in the USSR to make payphones; Australia's Bond Corporation has signed a letter of intent to set up the East's first public cellular mobile telephone network in Budapest; Canada's Northern Telecom, Sweden's Ericsson and Telenokia of Finland all have

or are in the process of securing deals to supply central switches.

The need for international links has attracted satellite and fibre optic cable salesmen. Several countries are members of Inmarsat (the international satellite organisation, fees payable in dollars) and more are expected to follow.

Last year it ran a roadshow throughout eastern Europe and reported keen interest and a high level of technical expertise.

"Czechoslovakia is less than

five years behind the West in component manufacture and could be manufacturing C link within five years," says Mr Rob Gallagher of Inmarsat. This talent is largely limited to satellite and radio communication. One observer estimates the time lag elsewhere to be about a decade.

The need for international links has persuaded Moscow and a consortium of capitalist PTIs, including KDD of Japan, US West and British Telecom, to carry out a feasibility

study into laying an optical fibre cable across Siberia to link Europe with north-east Asia. Calls are currently carried by satellite or a pre-computer age cable called Simewer running from Singapore, through the Middle East to western Europe. A decision on the trans-Siberian cable is expected by the end of 1989.

Projects such as these are expensive. There are three ways for the eastern bloc to cope: joint ventures, counter trade, and the keenly avoided hard currency payment. The first of these is favoured of the moment for both sides.

Although only the Soviet Union and Poland have officially embraced the joint venture, Hungary should follow shortly.

The problem remains of how

the Western partner can extricate profits from the arrangement. This problem will remain until the rouble becomes a fully convertible currency, maybe before the end of the century. In GPT's case, the Moscow payphones will only make a connection if the caller pays in hard currency.

Attitude to joint ventures is not the only way in which Comecon countries differ from each other. There have been plans for a unified telecoms system for some years, but:

Forecast rates of telecoms growth between 1990 and 1995 vary from 100 per cent in Hungary and Czechoslovakia to 3 1/2 per cent in Bulgaria.

The Soviet Union plans for an increase of 52 1/2 per cent.

Continued on page 17

Exports of telecommunications equipment to the USSR by leading suppliers (US\$ 000's)

	1986	1987
UK	339	178
France	3,435	6,215
Netherlands	144	31
West Germany	688	404
Italy	327	673
Austria	181	75
Switzerland	72	65
Finland	92,776	164
Sweden	144	65
Yugoslavia	32,854	44,041
Japan	1,013	1,298

Exports of transmission equipment to the USSR by leading suppliers (US\$ 000's)

	1986	1987
UK	65	25
France	192	30
West Germany	294	219
Italy	144	85
Finland	23,485	164

Terry Dodsworth examines links between equipment manufacturers and developing countries

More international collaboration urged

IN ONE respect, the world's telecommunications industry has an impressive history of international collaboration.

Despite the fact that operating companies are run nationally, and have generally been supplied by domestic equipment producers, the industry has from its inception been aware of the need for users to transcend national boundaries. A web of complex international agreements has been constructed to respond to this demand.

Yet telecommunications today is in some ways dividing the world today as much as helping to bring it together. The growth of telephone systems is running along twin tracks - or even diverging ones.

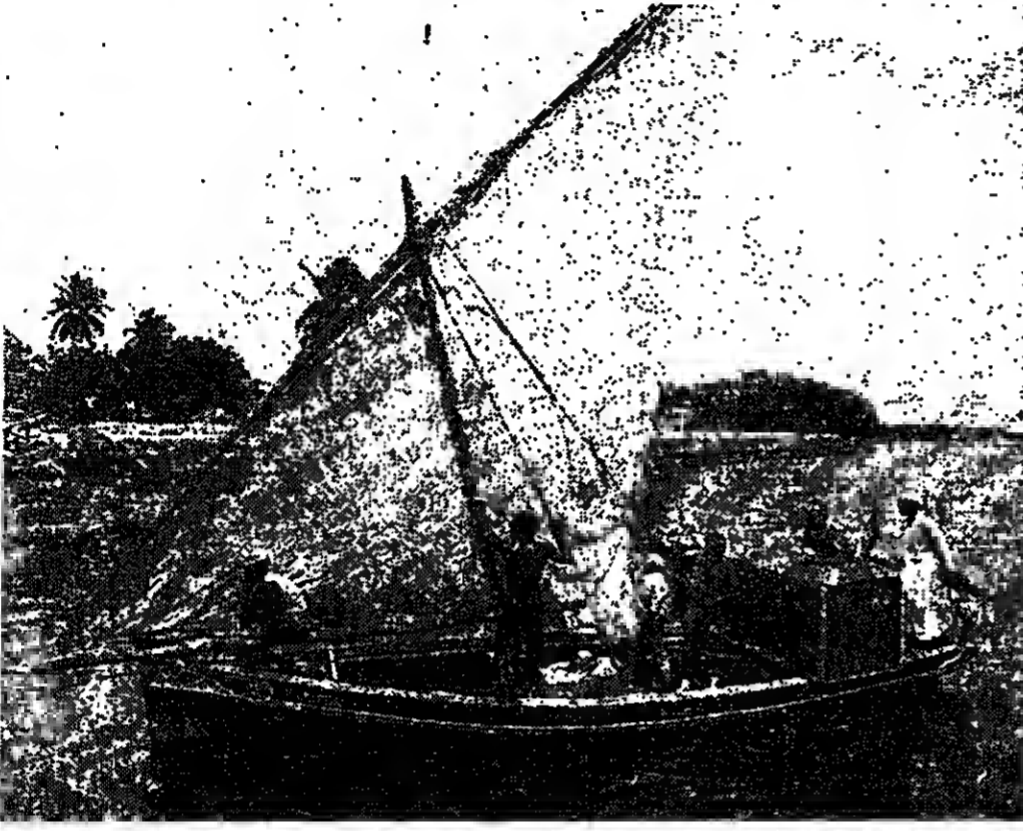
In the developed industrial world, telephone operating companies are spending heavily on a new generation of sophisticated digital equipment; yet at the same time, developing countries are struggling to achieve even a basic network.

This disparity in telephone services has a variety of consequences. It emphasises the North-South divide in the world's economy between the rich and the poor countries; it saps the ability of the developing world to attract advanced industries which depend upon effective telecommunications; it means that the vast bulk of the population in poor countries does not have easy access to a telephone; and it limits the ability of the poorer nations to climb out of their poverty through industrial growth.

The importance of telecommunications as an enabling factor in growth has frequently been emphasised. Indeed, some studies suggest that economic expansion is strangled at a certain point without an efficient telephone system; and good communications networks clearly disseminate information in a way that makes it more difficult to rig and control markets.

Because of the growing realisation of both the problems and opportunities, efforts to promote more telecommunications investment in the developing world have gathered force throughout the 1980s.

These initiatives, led by the



DELIVERY BY DHOW: when British Telecom had to ferry an entire telephone exchange to Lamu Island, off the west coast of Kenya, the only transport available (above) was an Arabian-style dhow.

This modern exchange-in-miniature is the digital LXD 3, designed for rural communities and supplied as part of a \$30m project to update Kenyan telecommunications.

HELPING TO SAVE LIVES: Following a plea by a doctor in a remote Karyan hospital, a BT telephone exchange, right, is helping to lives where patients may have walked for days to reach medical care. Pictured with children is Ian Firkins, a business system manager from Cullompton, near Exeter, who helped instal the equipment at Chogoria Hospital.

The exchange was donated by BT's Westward District - "it's a fair comment to say this new system will help save lives," commented a medical officer at Chogoria.

The world telecommunications network is one of the great human achievements - it serves, for example, 600m telephones and has combined yearly revenues of around \$250bn. There is, however, immense disparity in the extent of telecom services between industrialised countries and the developing world. Over half the world's population live in countries with fewer than 10m telephones between them - and two-thirds of the world population still has no access to telephone services, while Tokyo has more telephones than the whole of the African continent.



Some developing countries are struggling to achieve even basic telephone networks

World Bank and the International Telecommunication Union, the body which brings together telephone operating companies from around the world, led to the pace-setting report in 1984 prepared by a committee under Sir Donald Maitland, the former British

Ambassador to the United Nations.

This pointed out that of the 600m telephones in the world, three quarters were concentrated in nine countries. It made a series of recommendations, including efforts to establish telecommunications as a priority investment in developing countries, and new methods of funding expenditure.

Last month, the Maitland report led to a new initiative at the ITU, when a specialised unit was set up with a budget of \$575m a year to help support telecommunications in developing countries. This new Telecommunications Development Bureau will have its own permanent staff to help developing countries on technical and managerial issues.

A more controversial proposal to split revenues from international calls disproportionately in a way that would redistribute funds from the developed to developing countries has so far been rejected by the ITU.

It is still under consideration as a means of giving poorer countries funds for investment. But it is likely to continue to attract strong opposition from the richer industrialised countries: they have doubts about these means of extending aid, and the efficiency with which money is spent in the operating companies in the developing world.

Combining with this opposition to straightforward aid through the ITU, there is a growing body of opinion in support of a different approach to stimulating growth in the developing countries.

In a view which is increasingly echoed by the World Bank, Sir Donald says that developing countries should do more to encourage collaboration that will bring in outside capital to their telecommunications industries.

"There is no reason why these countries should not be able to raise funds through joint ventures," he says. "The reason is that the moment one puts a telephone in, it begins to earn money. Telecommunications is inherently profitable."

The response to these new policies and ideas over the next few years is likely to be patchy. Indeed, the history of the last decade or so shows the variety of different approaches to development that are available in telecommunications. They include:

Aggressive expenditure on new switches and infrastructure to push through a crash expansion programme, as in some of the newly industrialised countries (NICs) and the East Asia.

Countries such as Singapore and Hong Kong have eschewed manufacturing for themselves, taken advantage of a buyers' market for switching systems, and driven hard bargains with Japanese suppliers for low priced products.

The NICs have had an advantage over many other developing countries in that they are small, and are therefore able to install their systems relatively quickly, at the same time they have had more funds available for expenditure because of their growing manufacturing strength.

The establishment of a domestic manufacturing industry through joint venture agreements with European, Japanese and American equipment manufacturers.

Mexico, for example, has fol-

lowed this policy with a deal with Alcatel of France. The idea here is to produce overseas-designed equipment locally and thus preserve foreign exchange.

A third approach is to try and design a new range of equipment for the local network based on indigenous technology. India currently has ambitious plans of this kind, having already developed a successful range of domestic telephone exchanges.

It is now aiming to invest in production of a new public exchange, called the C-DOT, entirely designed by Indian engineers and software specialists. The idea is that this should be simpler and cheaper to make than modern Western Exchanges, and would therefore be more appropriate to the rapid extension of the telephone system throughout rural India.

The development of an indigenous manufacturing sector based on foreign investment but strongly geared to

exports as well as domestic consumption.

Brazil falls into this category, with collaborative agreements with several European and Japanese switch producers; products from these joint ventures are exported to other South American countries and to Africa, taking advantage of the low manufacturing costs in Brazil.

These different strategies allocate resources in various ways between manufacturing and services.

Overall, however, there is a tendency among the larger countries in the developing world to try and develop equipment production activities as well as expanding their telephone network services.

One reason for this is that telecommunications is seen as a high technology industry that will help general technological development; another is to provide employment; and some countries also argue that domestic manufacturing is essential because of the scar-

city of foreign exchange and the high cost of foreign equipment.

Some economists argue, however, that this intense interest in manufacturing in many countries is misguided. Scarce resources would be best used, they contend, in strengthening telephone networks to give a boost to the entire industrial and commercial infrastructure.

One point here is that the resources needed for telecommunications development, whether on the manufacturing or the services side, are equally limited in developing countries.

For the foreseeable future, both technologists and managers, the two essential ingredients for growth, are in short supply, and sufficient training is not yet available to fill the gap; spreading funding and personnel still further between two fields of activity reduces their impact even more.

Several developing countries are beginning to move in the direction of putting more emphasis on the services side. Some are even doing it on a joint venture basis - the telephone companies in both Spain and Portugal, for example, have been active in South America; and Cable and Wireless, the UK group, runs the telephone systems in many countries that used to belong to the British Empire.

To extract the full effect out of these investments, however, many experts say that developing countries must also change their attitudes to the telephone operating companies and lighten up management.

The network groups are frequently used as cash cows with funds to be drained off for other central Government activity; and they also supply employment for armies of public sector workers.

Economic expansion is strangled at a certain point without an efficient telephone system

"There is a problem," says one consultant, "in persuading Western countries and companies to participate in projects in developing countries when they suspect that a great deal of the funds will go towards maintaining a high level of feather-bedding among employees."

Costly connection

IRAN is the mostly costly country in the world in which to have a private phone installed, according to a report from Siemens, the telecommunications group.

The Iranian installation fee is ten times higher than in the UK and 17 times the cost in the US. But Iran's rate for three-minute local calls is relatively cheap: a quarter of the cost of the UK figure and twice the average US rate.

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Creating Business Advantage

Hong Kong puzzle

Continued from page 15

was attracted by the second network because it gave the option for introducing telecommunications competition.

Eventually, after a period of considerable indecision, the government last year invited cable tv bids and effectively ruled Telco out of the race by decreeing that it could only have a 15 per cent stake in a cable consortium.

This left Hutchison as the only viable contender for the cable tv business. The government then went great lengths to attract other bidders, if only to provide token competition.

This led to three rivals emerging, the only viable one being Hong Kong Cable Communications, which has proved a much tougher competitor than had been expected. It includes US West and has was put together by Wharf Holdings, controlled by Sir Y.K. Pao,

a major rival of Mr Li Ka-shing.

Hutchison CableVision includes British Telecom, Cable and Wireless's arch rival for international contracts with a 24 per cent stake, and AT&T of the US as an advisor. Also in the group is Hutchison Telecom, which operates cellular and paging telephone services and wants to grow into a major Hong Kong-based Asia-Pacific telecommunications company with European links.

So, with the awarding of the cable tv licence, the scene is being set for competition to begin in Hong Kong's telecommunications, initially only for non-voice services but then maybe for domestic voice as well in 1995.

That would then leave the plum of international telecommunications as a monopoly in the hands of the old colonial-based Cable and Wireless till 2006.

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INTERNATIONAL TELECOMMUNICATIONS-17

صكنا من الالهل

Kevin Townsend looks at the dynamic advances in facsimile transmission

The fax phenomenon continues

FROM ALMOST nothing just a few years ago, the facsimile machine has become one of the most dynamic areas in the office market.

The basic reason is simple: fax is easy to use. Unlike the alternative messaging systems (electronic-mail or E-mail and telex), it doesn't require any specialist training - and it also has one specific advantage: Fax can transmit drawings and diagrams, as well as text.

In concept it is very simple: little more than a scanner, a modem, a printer (usually thermal), and the controlling software to make it do as it is told. The scanner "reads" the contents of a document, the software converts it to fax format, and the modem transmits it to a distant system that receives the signals and produces hard copy via the built-in printer.

It is the additions to this basic, the go-faster stripes and "the bells and whistles," that differentiates one system from another. For example, many of the newer systems now include a built-in telephone handset, and the ability to store, in some cases, up to 100 or more destination telephone numbers for single-touch auto-dialling.

Automatic timed control, and software-controlled selection can pick up different documents from an automatic document feeder (ADF) and send them to different addresses overnight - and at cheap telephone rates.

Another new development is the introduction of smaller and sometimes portable fax units - the theory being that every desk should have its own personal scanning fax unit.

Indeed, the Japanese heartland of the fax unit is already well on its way to achieving this.

However, despite the size and dynamic nature of the fax market, it is unlikely to survive in its current form. The primary threat to the stand-alone - shall we say "scanning" - fax-machine has come in the form of the ubiquitous PC board.

The PC fax is effectively a fax unit on a card that slots into the back of a PC, and allows any text held on the PC to be transmitted and printed out at any "scanning" fax machine attached to the international telephone network.

What it does not have is the ability to scan in new original graphics. After a number of false starts, the PC-fax is now becoming more useful, and a greater threat to stand-alone scanning systems.

There are both advantages and disadvantages to the PC board. However, its original

market failure was due to a greater understanding of the disadvantages than of the benefits.

It was, for example, initially perceived as a cheap alternative to the scanning fax unit - but one that could only transmit text. But there are many more desktop PCs than stand-alone fax systems; that is, there is a greater market for

The fax is very simple: little more than a scanner, a modem and a printer

PC-to-PC than PC-to-fax. This means that the fax board is competing more with E-mail than with traditional fax, and E-mail is cheaper and faster than fax.

This inability to transmit graphics stopped the fax board market in its tracks. But now things are different. Comwave, for example, includes new file format conversion routines on its top-of-the-range fax board. The most significant is a PostScript driver.

Now the relevance of this is that PostScript is the rapidly emerging industry standard page description language. It is used to produce the mixture of text, styles and graphics that

lies at the heart of most modern desktop publishing packages - and nearly all of the latest word processors, graphics, spreadsheets and databases also include a PostScript driver.

It follows, then, that with such a fax board anything that can be produced by an application package that has its own PostScript driver, regardless of the typeface style or size and irrespective of the degree of graphics, can be sent to a remote scanning fax system for printout.

The methodology is simple. A software application is used to generate an ASCII PostScript file on disk. The fax board conversion routine then converts this file to fax format and transmits it to the remote system.

The implications are quite significant, comments a market analyst. First of all, the quality received at the destination fax is superior to standard scanning fax since no imperfections can be acquired at the scanning stage, and no paper blemishes are included from the original sheet.

Mr Ed Martin, Comwave's product manager, believes that the inclusion of a fax board within the personal workstation of relevant users is a more cost-effective solution than the traditional central scanning

fax station.

"No more queuing, waiting, not knowing if that urgent fax has gone or not, whether it was received clearly or if several pages went through at once and it needs to be re-sent..."

But the fax board has to be used intelligently. For example, its most obvious use is from local fax board to remote scanning fax station. Although it can be used to send from board to board, this is in many cases irrelevant. If you need to send a message or file from one computer to another, then simple file transfer would be cheaper and more effective.

"I see fax, whether fax board or scanning fax," says Mr Martin, "as ideally suited to inter-company messaging. E-mail and file transfer is better suited to intra-company messaging."

But the fax board really comes into its own wherever copies need to be sent to multiple different destinations.

Because the operation of the board is software-controlled, it can be programmed to perform wide-ranging functions. For example, consider the need to get up-to-the-minute information, in a presentable form, to geographically dispersed clients.

This could be anything from an accountant's analysis of the market, through latest prices and stock availability from head office, to a daily specialist news bulletin.

Traditional mail would take too long and is becoming increasingly unreliable. E-mail would require at least compatible software; and scanning fax would probably require a dedicated operator sending at peak rates.

The fax board, however, could be programmed to send personalised copies to individual clients automatically and at cheap telephone rates.

But the fax board must never become too successful at the expense of traditional fax.

"I don't see us as competing with scanning fax," says Mr Martin. "I see the fax board and the scanning fax as complementary, existing side by side."

This is not surprising since although the board can be seen as a competitor to the scanner, it cannot really exist without scanning fax destinations. There is a danger that too much success will only limit further growth.

Changes in the fax equipment market

Purchasers become more demanding

HOW LONG will it take for the word "fax" to enter the hallowed columns of the Oxford English Dictionary? In theory, it ought not to be long, because over the past two or three years, as the number of facsimile machines in use in Britain has soared to well over 400,000, and the word "fax" has well and truly entered the language.

At the same time, buyers are getting more discerning - no longer are they buying "any old machine as long as it's cheap" - as insurance against another postal strike, or even a rail strike. A growing proportion of high-end machines are now being purchased as users, probably with a better understanding, seek more features.

According to Mr Lester Davis, chairman of the British Facsimile Industry Consultative Committee, (BFICC): "There has been a significant trend towards sales of fax machines with features that offer greater flexibility and improved efficiency. These include larger paper rolls, automatic distribution to more than one destination and capacity for documents larger than A4."

"Users have also become more demanding in their fax requirements. They are now buying machines which provide simplified user operation, reduce the time spent queuing at machines to load documents and which provide quicker transmission times between machines," he says.

With over 400,000 Group 3 (sub-one-minute transmission time) machines in use, companies "clearly recognise that facsimile is an essential way to communicate, and that with a wide range of machines available, no-one should deny themselves the benefits that fax will bring to their organisation," he adds.

The bottom-of-the-line manual machines and those without guillotines to cut the paper may be suitable for the very occasional home use, but do not merit consideration for serious use. After all, who is prepared to waste time cutting six feet or more of a message into individual pages?

Even worse, with a manual machine, the user dials on an associated phone the number of the remote fax machine, then waits for the machine to

answer before pressing a button on the machine to initiate transmission, and putting the phone down. As the amount of fax traffic is increasing, machines are frequently busy - this means redialling until it gets through.

Even when machines carry autodial and other sophisticated features, they are often so user-unfriendly that the features are under-used. As a result, the casual user is unable to use the machine except for the most basic functions.

A growing proportion of high-end machines are now being purchased because users, probably with a better understanding, seek more features

Furthermore, even the skilled and regular operator may need to refer to the manual each time of use - especially when the feature concerned has to be reprogrammed. This will often apply to "delayed send" procedures aimed at taking advantage of cheap evening telephone tariffs.

It must be open to question whether there is any point in having features which are claimed to save time or money if they are too complicated for people to use. After all, unlike telex which demanded a dedicated operator, fax machines may be used in an office by a wide range of staff - and especially so in an open plan environment.

The reality of the marketplace is that margins are being eroded as the growing number of vendors - and dealers who have been discounting heavily to get sales at any price - has generated increasingly intense competition.

Is this good news for the customer? The answer must be yes - until he gets (or appears to have) problems with a machine.

Even comparatively large organisations often only have one fax machine. In the event of any failure they are then out of action until the defect is rectified. However, it is quite possible that many of these problems result not from machine failure but from users not being able to use the machine properly.

This is brought home by Mr Gerry Tull, Konica's fax manager who says that its Facsimile Centre is able to resolve about 80 per cent of customer problems over the phone.

This is a key indicator to the direction that will be taken with future fax machines. As well as additional features, such as the latest CCITT (the international telecommunications standards body) error detection and correction standard, the main improvements in machines will be aimed at easing use. Instead of cryptic messages, or even no information at all, which sends the user scurrying for the handbook, user-friendliness is becoming an important component in the design of machines.

For example, the trend will be to larger liquid crystal display panels, with information presented in such a manner as to guide the user through the necessary steps to program a machine in an intuitive manner.

Following market research on machine use, Konica is introducing a system which allows the machine to read and automatically act upon required transmission criteria (such as fine resolution, low contrast and so on). The information is marked on a special cover sheet that accompanies the message. Where computer print-outs are sent which need special attention, the same cover sheet can be used each time and consistent results assured.

One of the ways that fax has increased the tempo of business is that hand-written messages are quite acceptable - no longer is it vital that the most minor memo be beautifully typed.

This time-saving opportunity will have come to nought if the writer of a memo cannot work out how to use the fax to send it. Any premium price one has to pay for more user-friendly machines will be more than repaid by savings in time and money during their lifetime.

Adrian Morant

Eastern European projects

Continued from page 16

Arms earmarked for growth differ transmission is a priority for all except Bulgaria, satellite ground stations for all except Bulgaria, East Germany and Hungary and private exchanges (PABX) for all except Bulgaria and Poland.

Some countries are easier to do business with. Apart from joint venture regulations, western executives express a preference for Poland, Hungary, Bulgaria and Romania "because they have a history of entrepreneurship," and some complain that the Soviets find it hard to understand aspects of the business deal such as cost saving.

Such factors may be outweighed by political obstacles which have led Telecommunications Research Centre to say: "Serious questions must be asked about the wisdom of trying to break into the Russian telecommunications market."

Yugoslavia is another singled out as risky because of its crumbling economy and civil strife, although this spring, Siemens of West Germany established a joint venture there to make its EWSB digital exchanges.

The Soviet Union has led the way in the relaxation of joint venture rules. In October 1988 Moscow proposed to raise the maximum foreign holdings in a joint venture to 50 per cent from 49 per cent.

By virtue of its sheer size, the Soviet Union is the honey-pot of the East. It needs 100m telephones installed by 2000. According to Mr John Murphy, of City Solicitors Theodore Goddard, joint ventures will be hard pressed to meet domestic demand in the Soviet Union, let alone be able to spare capacity for exports.

The TBC is blunter, saying that Soviet industry does not have the capacity to produce the 4.7m telephones a year required. Nevertheless, the vast domestic demand for all telecom products overshadows the combined potential of

mining satellites and microwave links with more conventional copper and optical fibre cabling.

This approach has been recommended for China too, where, so the theory goes, vast distances can be conquered by microwave, especially with the frequency sharing technology of cellular technology.

Both exports and joint ventures are subject to the turbulent regulation of Cocom, which authorises the transfer or otherwise of high technology to communist countries.

However, in the four-yearly review of Cocom listings of September 1988, many classes of telecom product were taken off the prohibited list.

The net effect was that the regulations were liberalised in respect of transmission equipment, radio relays, optical fibres (although some restrictions still apply) and stored program control switching.

Common countries are easing trade regulations on joint ventures

domestic and export markets available to plants in the satellite nations, not least because those exports that sales will largely be within Cocom.

The size and inhospitable climate in large parts of the USSR contribute both to the need for efficient telecoms and the difficulties of implementing it. The plan is to bypass some of these problems by

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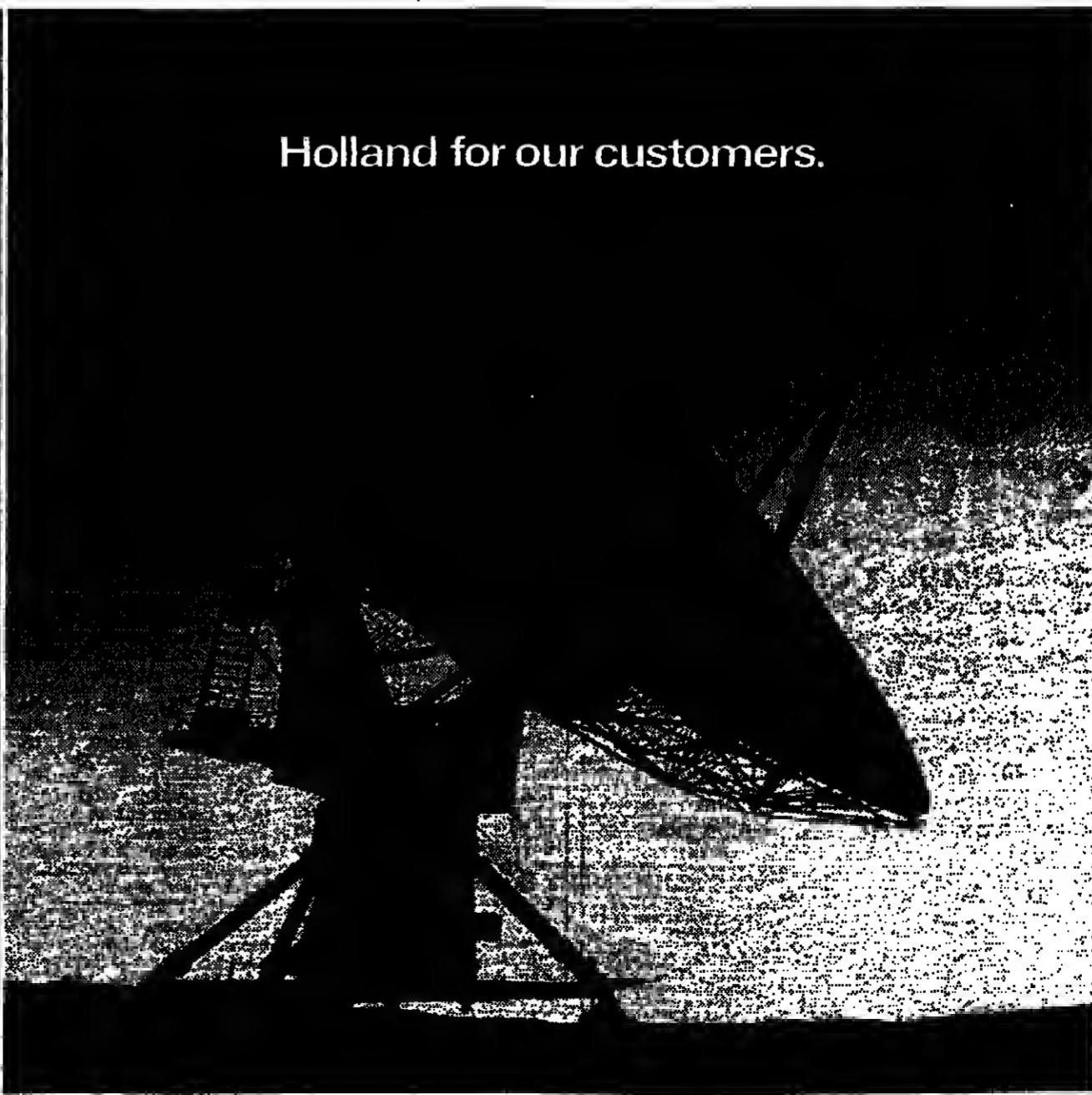
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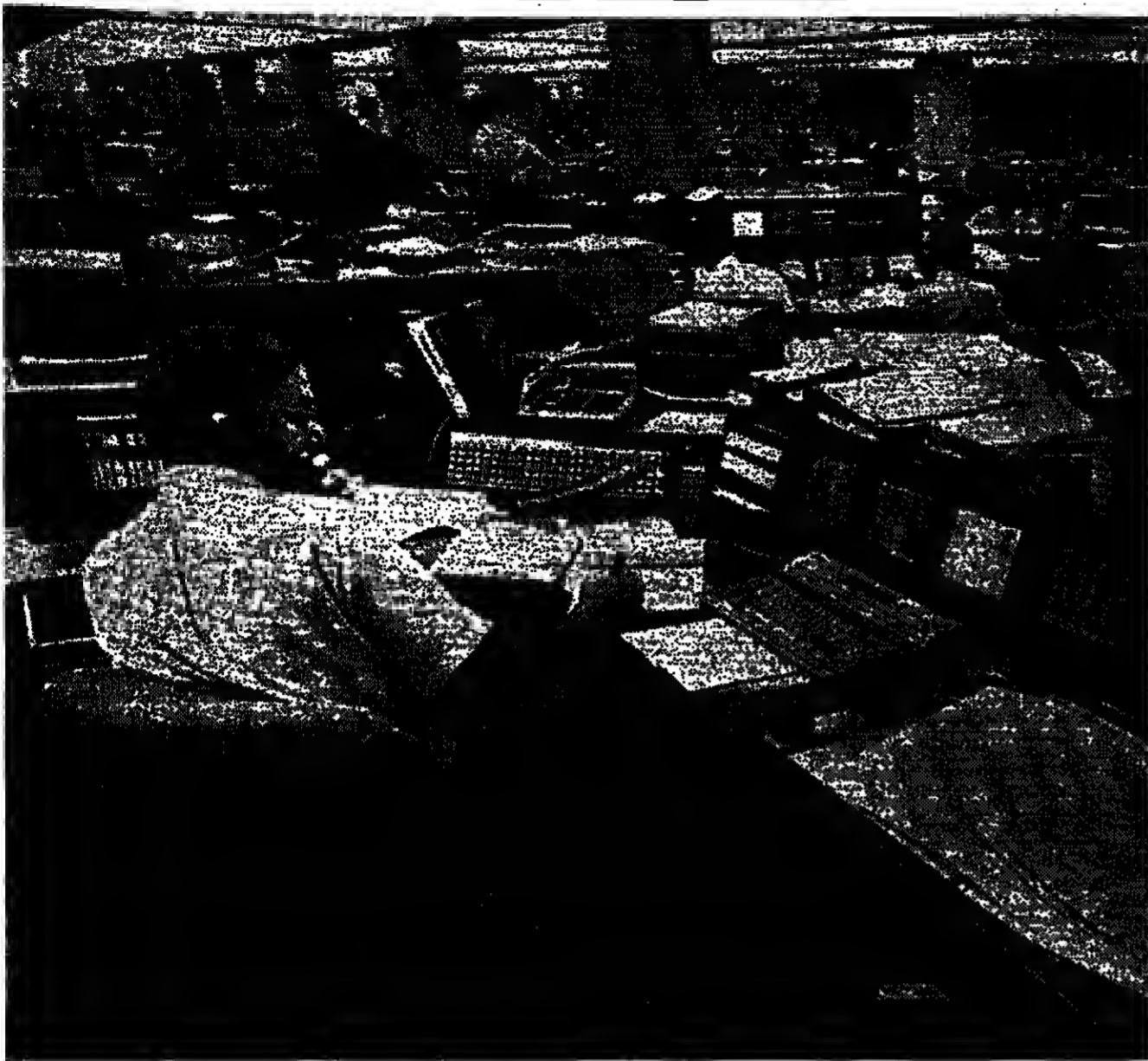
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INTERNATIONAL TELECOMMUNICATIONS-18



Dealers and brokers benefit from electronic mail by gaining the edge in matching buyers to sellers, irrespective of location

Changes in electronic mail systems

Need for compatibility in a more sophisticated network

ELECTRONIC mail systems, such as Telecom Gold and Mercury Link 7600, are the telecommunications equivalent of Post Office boxes in the UK. A user of, say, Gold is able to send a message from his desktop computer into the Telecom Gold computer. It can then be retrieved by a second user who may be in a distant part of the country or even another part of the world. It only needs his personal computer (pc) and telephone access.

This is possible because each subscriber to a system has a unique address, his mailbox number. The central computer of the system contains a series of electronic mailboxes. Users dial into that computer and, after giving a password, are allowed to access any mail waiting for attention. As well as being comparatively simple to do, it means using the pc and keyboard with which the user is familiar.

At present the only universal E-mail system is telex which has over 2m users worldwide. However, even

though telex messages have legal status, there are inconveniences caused by the restricted alphabet of upper case letters.

Furthermore, the machines are frequently in the post room and, as outgoing messages have to be keyed in and incoming ones delivered to the ultimate recipient, they often do not form part of the "real-time" business.

While some of these problems have been overcome by companies using telex message switches, it is a bit like modernising a manual type-

writer. The proliferation of pcs, the recognition that telex is rather cumbersome, the unsatisfactory postal service, and the increasing tempo of business are all reasons underlying the growing use of E-mail. However, while there are growing numbers of users, they use a number of incompatible systems. This problem will, to some extent, be resolved as a growing number of these E-mail systems adopt the internationally agreed X400 standards for message handling.

While the aim of the E-mail facility remains the transportation of messages around an organisation this is adequate. However, the whole concept of electronic mail is evolving away from just the provision of a rapid person-to-person text messaging service which is independent of that person's location.

It is moving towards being a strategic resource involving the connectivity of more complex data between applications using industry standards rather than the use of incompatible proprietary protocols.

However, the widespread adoption of X400 will not be enough. As any network gets more sophisticated and more heavily used the requirements and expectations for the whole will exceed that of the sum of the parts.

This is especially true if it expands to link what were previously separate "islands" which evolved in a piecemeal manner just to meet individual local goals.

Often E-mail will have been provided as an application on the host computers at the various locations with inter-site communication being handled via one of the public E-mail services.

According to Mr Alan Wallman, managing director of Key Exchange, a leading European supplier of information interchange systems: "Businesses now recognise that they need a corporate network approach to electronic mail which addresses the important issues of connectivity, management and mail-based applications."

He points out that Open Systems standards do not provide the complete solution, nor do they have universal implementation by suppliers.

The effect is a set of information bottlenecks that reduce the benefits of IT systems.

Consequently, the Key Exchange approach is to supply a set of tools to allow users to communicate across these barriers irrespective of whether they are the established proprietary protocols or the new OSI standards.

The company claims to hold a unique position in the IT marketplace as the leading European supplier of solutions to large organisations with incompatible E-mail and document processing systems. Shortly after it was founded in 1986, it broadened its product portfolio by acquiring a controlling interest in the UK subsidiary of the US-based Soft-Switch.

Key Exchange is responsible for the European end of Chase Manhattan Bank's worldwide network upgrade in which it is investing about \$500,000 with Soft-Switch.

This is an example of the real world. Its three main centres are in New York, London and Hong Kong and it has an installed base of IBM, DEC and Wang machines. Over the years a number of proprietary messaging systems have been implemented.

These include IBM's PROFS, DISOSS, and AS/400; DEC's AIX-1 and VMS Mail; Wang's Office and MailWay; Banyan's Mail; and Network Courier Mail. The continued operation of this network is vital to the operation of the bank.

The bank has been installing over the past two years a Soft-Switch network to link all its dealers and brokers and the rest of the 20,000 electronic messaging users.

The result being that, without users having to learn new incantations, messages are

transmitted across the world between sites E-mail systems without delay. This gives the bank the competitive edge in matching buyers to sellers, virtually irrespective of where they are located.

As part of its strategy to enhance its communications the bank has added a gateway in the US to the MCI International messaging services as well as being a "beta" test site for Soft-Switch's X400 electronic mail products which will provide Open Access. This enables it to provide direct E-mail access with customers and so enhance its response time still further.

Nowhere is communications more critical than with the financial community where a failure could leave a dealer dangerously exposed.

The issues are complex. When a network is being planned to embrace an entire organisation there is frequently the problem that it is not a "green field" situation.

The company often has a large investment in an IBM SNA network which has evolved to provide a high level of reliability and availability. In a view commonly propounded within industry, the organisation should rapidly migrate to international OSI (Open Systems Interconnect) systems.

Those who have operational responsibility, seek a more evolutionary, and less traumatic, approach for both users and the system - especially as they are in the firing line if the system goes down.

Adrian Morant

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Advances in Electronic Data Interchange (EDI)

Charting the progress of paperless trading

IT HAS become accepted that the "paperless office" has not become a reality because it was a dream, based on false assumptions. But "paperless trading," known as electronic data interchange (EDI) is fast gaining ground as an accepted way of doing business.

EDI is used to replace paper-based orders, invoices, freight and forward notices, and Customs documentation with networked computer-based systems.

Savings are derived through reduced paperwork, less manpower, and most significantly, a reduction in error - due to once-only keying-in of basic information.

According to a Yankee Group report, over 70 per cent of European EDI activity is based in Britain which has over 2,500 companies involved. It predicts that EDI will grow at a rate of 30 per cent for the next five years. The US, meanwhile, has by far the largest base, with over 7,000 users.

Typically, EDI networks have been developed within specific market areas:

- Retailing.
- Automotive industry.
- Shipping.
- Insurance.
- Pharmaceuticals.

British Coal is an EDI pioneer. It started a pilot project in 1982, linking 12 of its leading mining machinery manufacturers, to exchange orders, invoices, lead-time prices and listings of critical spares.

The pilot project was deemed to have worked so well that the system was extended to operate via a clearing house and now links 149 users.

Mr Bill Bedford, head of purchasing and supplies, says that the network has met the need for greater accuracy and cost-cutting - "it has been highly successful and now we are able to order stock later, hold less stock, and save on administration overheads," he says.

British Coal's EDI network processes 33 per cent of its purchase orders (192,000) and 12 per cent of its invoices (310,000) each year. It expects this to increase to 50 per cent and 25 per cent respectively by the end of this year.

"It'll grow exponentially," says Mr Bedford, who is an unashamed EDI enthusiast and campaigner.

The European Community sees EDI as central to the concept of a united Europe. It has calculated that savings through EDI can be as much as 10 per cent of a member-country's gross domestic product.

In 1988, it launched the TEDIS programme which is designed to co-ordinate EDI groups in different industry sectors, and to promote awareness and stimulate demand.

the Finance Ministry. The project if successful, will be one of Europe's largest EDI networks with 50 cities linked by the end of this year, generating an income of \$3.5m per year.

US-based Electronic Data Interchange (EDI) is planning what could become the world's largest EDI network. The system will link seven European companies, while up to 4,000 companies have been considered by EDI's parent company, General Motors, to take part in linking suppliers to manufacturing plants.

active in a variety of ways ranging from assisting on standards groups to providing the EDI networks themselves.

Digital Equipment Corporation is focusing on the problem of providing gateways that link competing EDI networks.

IBM's EDI network has captured ten per cent of the UK market. The company hopes to gain customers by example as much as anything else. It is installing EDI in-house and expects to be trading electronically with 12,000 of its largest suppliers by 1991.

IBM says that the result of a recent direct EDI link with Texas Instruments, its productivity gains of 117%, with inventory turnover, increased by 30 per cent in three years and lead-time down by more than 30 per cent on more than a quarter of "high value" parts.

Now IBM says it wants 50 per cent of its business to be carried out electronically by 1992.

It describes a wide range of activity, even in the UK, less than one per cent of all business transactions are being done via EDI at the moment.

Over the next few years the industry faces the difficult problem of uniting activity based on a number of different messaging standards.

There is considerable momentum behind the world-wide EDIFACT standard which, according to Intel's marketing director, Mr Phil Costello, "will be the assumed way of doing things in five years' time."

EDIFACT is endorsed by the Commission for European Communities and the European Free Trade Association.

Others believe that X400, an emerging message-handling standard, could be the universal EDI umbrella that will give greater ease of use and interconnection.

Whichever way the standards-issue is resolved, the next few years will see EDI begin to break away from niche market development and, with increasing numbers of active parties, its use will grow further.

Kenneth Young

The United Kingdom has become something of an EDI trail-blazer due to liberalisation of its telecommunications and the ease with which value-added network suppliers can be set up

The EC is equipping small to medium-sized companies do not miss out on the opportunities available.

In a bid to extend the availability of EDI, it has commissioned Price Waterhouse management consultancy to undertake a study of the benefits of EDI to such companies.

EC funding will be made available for equipment and service costs for three or four companies in three different market sectors.

The aim is to stimulate small to medium-sized enterprises to act more pro-actively using EDI competitively and encouraging customers to do the same," says Price Waterhouse partner, Mr Glen Peters.

The UK has become something of an EDI trail-blazer due to liberalisation of its telecommunications and the ease with which value-added network suppliers (the companies acting as central brokers for the EDI networks) can be set up.

But the rest of Europe is beginning to catch up. In France, for example, the national datacomms network operator, Transpac, is seeking to be a major player in the European EDI arena.

Transpac will be the project manager of a national EDI network called TDECO, which will link 2,000 of the country's largest towns and cities with

Due to completion within two years, the project will be jointly run with Gelesco, Transpac and Inetel, which already operates the network's main base in Britain.

Further afield, there are numerous embryonic EDI projects being developed in Australia, for example, the current focus is on using EDI to handle importing and exporting details. The network, called Transgate Australia, is expected to link 8,500 terminals within five years.

In the Soviet Union, the first EDI project is under way. Based in Leningrad, it will be used initially for military communications and cargo shipments - and later for messages between ports and railways.

As more companies seek the benefits that EDI can bring, there is growing belief that its use is of major importance.

Consultants point to a number of areas which it directly affects:

- Just-in-time manufacturing systems.
- More efficient distribution.
- Organisational changes.
- Redistribution of labour.
- "Competitive edge" technology areas.

The leading computing manufacturers recognise the obvious potential for selling hardware on the EDI "ticket" and

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INTERNATIONAL TELECOMMUNICATIONS-19



Laying and cutting cables on the sea bed

Alan Law, above, chief cable engineer on board the Cable and Wireless ship, "Sir Eric Sharp", pictured on deck with the submarine equipment which is used to lay and cut telecommunication cables on the sea bed.



Pictures by Tony Andrews

Adrian Morant charts the rapid increase in world telephone traffic

More powerful exchanges to meet peak demand

WITH THE telephone assuming a position of even greater importance as the tempo of business increases, how will the telephone exchanges be able to cope?

GPT last month claimed a world record - which will be submitted for inclusion in the Guinness Book of Records

tastes during the day, so does telephone traffic. In both cases, the system must be designed to accommodate the peak demand

is a 70 MPH speed limit. This is not the case in view of the sudden and unexpected loads that can be imposed on a network

calls in the US in 1987. System X is of a modular design, based around a number of "clusters," which can be increased to accommodate higher traffic demands

Prior to the introduction of the new generation of equipment, a significant proportion of the total call time was spent setting up the call

whether or not the card is "good".

Similarly, the entire call to send an A4 page via a high speed Group 4 digital facsimile will only take about five seconds.

Today's digital telephone exchanges can also provide Centrex service. This obviates the need for a company to have its own PABX as all the facilities are provided by the telephone exchange.

At present, multi-sited companies frequently have private networks with leased lines linking their establishments in different parts of the country.

These leased lines are expensive. Consequently, the concept of the virtually private network is attractive because it enables the use of leased lines to be shared and so maximises their utilisation to the benefit of both supplier and user.

gent Networks (IN), the amount of processing power required per call will continue to increase. The IN of the future will provide a wide range of features including wide area Centrex (spanning a number of sites); multimedia services to facilitate the integration of voice, text, graphic and even video information; and personal communications services.

These latter facilities customise the subscriber's interface with the network to allow, for example, the retention of the same telephone number even when one changes geographic location, or "name dialling" whereby the subscriber places a call by speaking or typing a name rather than dialling a telephone number.

Only manufacturers who can demonstrate large amounts of processor power can be relied upon to provide the network operators - who will be operating in an increasingly competitive environment - with a future-proof system to meet these emerging market requirements.

As we move towards intelligent networks, the amount of processing power required per call will continue to increase

Additionally, the data transmission rates used within the network are increasing. Thus, the call duration needed to transmit a given amount of data is reduced.

Not only must the telephone companies ensure that exchanges can cope with the increasing demands from users, they have to bring their systems into the modern digital era for ISDN and Intelligent Network services.

To meet these demands the telecommunications manufacturers are designing more powerful exchanges. GPT (GEC Plessey Telecommunications) last month claimed a world record - which will be submitted for inclusion in the Guinness Book of Records - when a System X carried 1.5m "busy hour" call attempts (BHCA) or 415 call attempts per second.

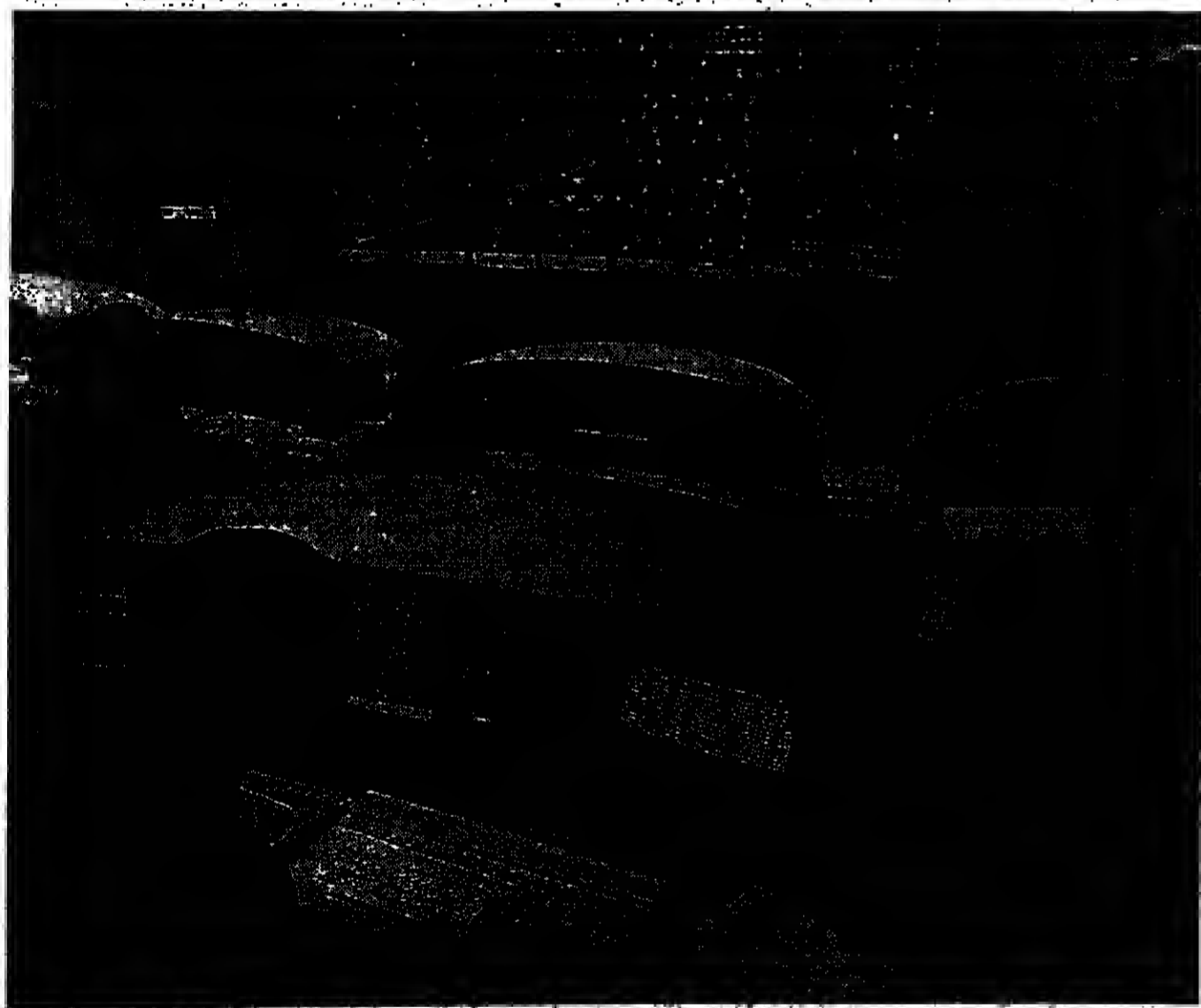
But what does that mean, and why is it of interest to the customer?

One of the major measures of the performance of a telephone exchange is the number of call attempts that it can handle in one hour. In the same way that road traffic fluctuates during the day, so does telephone traffic.

However, according to Mr John Ziemiak, GPT director of engineering and business centres, the real benefit of processing power will become evident as the telecoms services industry takes off in the 1990s.

A number of busy nodes carry around 350,000 BHCA on a regular basis in city centre type local applications and as trunk exchanges in the long distance network. Consequently, it may appear as if GPT is just advertising a 300MPH sports car with go-faster stripes for use where there is a 70 MPH speed limit.

As supply of telephony services is deregulated, then more and more suppliers will enter the market with differentiated products. He cites the fact that there were over 6m 0600-type



This control centre, recently opened in London, has the world's most expensive equipment for pinpointing potential trouble spots and taking swift action before service to customers becomes affected, closing down Telecom. Maps and other displays give staff a continuous picture of the state of the network, showing the flow of calls through it. On adjacent screens, TV programmes are continuously monitored to check for phone numbers flashed on to screens.

Case study: developments in Hull

City's digital network offers cheapest calls in UK

A TELEPHONE in Hull, in the north east of England, looks no different from any other telephone, but behind the scenes is one of Europe's most advanced digital telephone exchanges.

Local, national and international calls are handled by the city's System X network, the first installed in the UK, in 1984, 30 years after the opening of Hull's earliest exchange.

Hull was one of 13 local authorities in 1983 to obtain a licence to operate its own telephone service. Only six actually started a service and Kingston Communications is now the country's sole surviving independent PTO. Through recent takeovers, the city council remains its only shareholder.

invested over £30m on the modernisation of the network, serving over 150,000 telephone users in its 130 sq mile Home area, an investment financed partly by a European regional development grant of £7.5m.

Today, 70 per cent of all customers and 94 per cent of its 25,000 business lines are connected to the digital network, with complete coverage expected by 1991.

The digital network has brought a number of advantages to its customers, claims the company, including improved transmission quality, less congestion and low fault rates. The company has developed a number of its own applications for use with the network. It was the first PTO to offer prepaid billing, for example.

the cheapest in the UK. Calls can stay on the line as long as they like for a fixed charge, or can opt for pay as they go for any number of local calls of any duration without any further cost.

Customers telephoning outside the Home area can also choose whether to route their call through BT or Mercury.

The company is now building on the System X technology, currently running a trial of the Integrated Services Digital Network system, allowing voice, data and image to travel down the same telephone cable.

It plans to offer some ISDN services to the public before the end of the summer. As a public limited company it is now free to extend non-regulated activities such

as system and business equipment sales, outside its designated network area. It is a freedom that the company intends to fully exploit.

In May, for example, it announced details of a joint response with Plessey to the DTI's discussion document, Phones on the Move. The two companies gave their proposals for a national Personal Communications Network to commence in 1992, based on advanced radio technology.

The network would allow individuals to access all telecommunications services via their own personally numbered, pocket-sized, lightweight handset, from anywhere in the UK.

Alastair Guild

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INTERNATIONAL TELECOMMUNICATIONS-20

Paul Taylor highlights advances in value added network services

A revolution in global data transmission

FOR THE best part of the century since Alexander Graham Bell's telephone was demonstrated in Philadelphia in 1876, its basic function - to carry individual voice messages long distances over a metal wire - changed hardly at all.

Similarly, the suppliers of telephone services barely altered; they were mostly state monopolies run by civil servants or giant monolithic enterprises like AT&T of the US.

But in the last few decades this sedate world has begun to change out of all recognition. Forcing the pace has been technological advances, particularly the advent of widespread computer usage creating the need to transmit vast quantities of data around the globe, and dramatic moves in the regulatory environment.

Today, we are in the midst of a telecommunications revolution as voice, data and image communications converge and new regulatory structures develop to facilitate greater competition.

Nowhere is the impact of these changes more apparent than in the emerging market for value added network services - or Vans in telecommunications jargon.

Clear definitions of what constitutes a Vans are difficult to establish but the general regulatory authority ground rule is that they represent services that use the basic telephone network to manipulate information in voice, video or data form.

Most Vans involve the handling of data rather than voice. They include on-line electronic information services such as like Reuters, processing services like air-line reservation systems, inter-banking systems and electronic funds transfer, messaging services such as like electronic mail and electronic data interchange, and managed data networks.

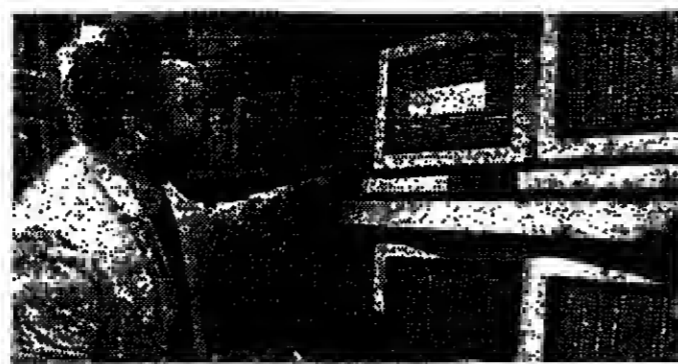
As such, they are in the vanguard of the move towards the information technology-driven society of the future. Among the factors which are spurring the growth of Vans has been the need of companies to capture and deliver real-time information electronically across a telephone line, particularly in the banking and

finance sector, and the growth of the use of computers which has led to the demand for electronic messaging systems. (Why pick up the telephone and use voice communications to convey a message when the information is already sitting on a computer screen?)

Computer messages can be stored if the intended recipient is unavailable, they can be sent to multiple destinations and they are generally faster, and therefore cheaper, than voice communications.

Such electronic mail systems range from in-house networks (not strictly Vans, unless they are tied into public systems) like IBM's system which links together its 350,000 worldwide employees, to public access systems such as Telecom Gold, run by BT.

While early predictions for the size of the electronic mail market have proved over optimistic, growth has nevertheless been impressive. Frost & Sullivan, the market consultants, suggest electronic mail-box services in Western Europe generated revenues of \$514.5bn in 1987 and are fore-



Ian Hamilton, British Telecom project engineer, carries out tests on M1500 computer terminals.

cast to rise to \$1.5bn in 1992 led by the UK and the Nordic countries.

Although it is unlikely that electronic mail will replace traditional forms of personal communication in the foreseeable future - Frost & Sullivan suggests old-fashioned telephone calls and letter-post will still account for 85 per cent of personal communications in 1992 - moves towards interconnecting corporate in-house mail systems with each other and

with public networks, could remove a major barrier to future growth.

Substantial growth is also likely in electronic data interchange systems which enable companies to exchange orders and bills electronically in standard formats.

While the most widespread use of the telephone system for data transfer remains within the large private networks run by multinational corporations the potential for ordering, invo-

icing and billing between companies electronically rather than by using pieces of paper is potentially huge.

Thus, EDI systems pioneered in the transport, retailing, and insurance industries are likely to proliferate as companies take advantage of new services to improve efficiency and cut costs.

Some governments, including those in the US and UK, have actively promoted the development of Vans because they believe such services will improve corporate efficiency and international competitiveness.

However, the development of sophisticated telephone information services internationally has been hamstrung by regulatory problems and the failure of the telecommunications authorities to facilitate international data transfer over public networks, particularly in Europe where many governments have sought to protect local telephone service monopolies.

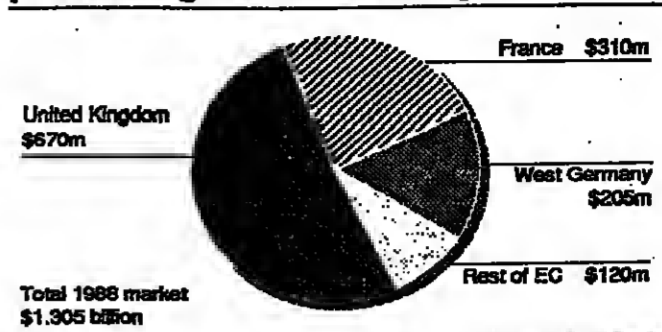
Now, under the impact of commercial pressures, technological advances like the introduction of Integrated Services Digital Network equipment, and an increasingly interventionist stance by the European Commission this too could be changing.

Ahead of the introduction of the single European market at the end of 1992, the European Commission has initiated a series of controversial moves aimed at both harmonising and liberalising the telecommunications marketplace. At the centre of these re-regulation moves is the Commission's drive for an Open Network Provision and a separate telecommunications services directive.

Last month, in a clear attempt to step up its attack on monopoly services, the Commission spelt out detailed new rules aimed at allowing private companies to provide value added services by the middle of next year and to offer their own basic data transmission services by the start of 1993.

These developments are likely to be fiercely contested by some EC member-governments such as France, Belgium, Italy and Spain which resent not only the content of the Commission's latest plans but also the way in which Brussels is

Communications, information and processing market in Europe



Sources: Frost and Sullivan

proceeding. Such opposition could further delay efforts to agree a common competitive framework for value added services although Sir Leon Brittan, the EC Commissioner in charge of competition, has made it clear that while basic voice telephony should be protected, other telecommunications services must be opened up to newcomers.

Such regulatory changes, together with similar moves in

expediency. While the figures for the scale and volume of Vans are often imprecise - reflecting differing definitions, it is clear that Britain, bolstered by relatively early telecoms liberalisation, has developed a much larger Vans infrastructure than some of its European neighbors.

Frost & Sullivan estimates that the market for communications, information and processing services delivered over public and private networks in Europe was worth \$1.3bn last year with over half the market in the UK.

By 1993, Frost & Sullivan predicts the EC market will have grown to \$7.95bn with West German overtaking the UK as the biggest market and France catching up.

Systems Dynamics projects similar growth but with different figures. According to Systems Dynamics the UK market for Vans was worth over \$300m last year and the European total \$2.1bn. By 1993, Systems Dynamics predicts a UK market of \$2.1bn and European total of \$7bn.

Who will be the principal providers of this projected boom in Vans traffic in Europe is, however, a moot point. What is clear is that the Vans market in the US is already considerably more developed.

Systems Dynamics says the US Vans market was worth \$5.5bn last year and will grow to \$15.2bn by the end of 1992, while the Japanese market will grow from \$1.7bn to \$6.7bn.

Many believe this in-built experience will help US multinationals grab the lions share of new international Vans business in Europe while Japanese technological expertise will

enable them to capture the bulk of the emerging market for advanced ISDN terminal equipment.

In the Vans market, analysts predict there will be two kinds of players, global, and niche market players - local companies supplying domestic needs. As the market develops, a process of rationalisation is likely.

There is some evidence in the UK that this is already happening.

While Vans suppliers such as Istel, the former Rover Group subsidiary bought-out by its employees, provides a range of electronic data interchange, viewdata and electronic mail services two of the biggest value added service providers are US-based multinationals, IBM and Geac. The former GE subsidiary which has formed the INS joint venture with the UK's ICL computer group.

BT, through its acquisition of Dialcom, also appears determined to become a major international Vans supplier. "The risks of entering the telecommunications networks services or Vans marketplace

The sedate world of traditional 'phone' services is changing out of all recognition

are great and many of the players will fall or become part of a larger organisational structure through merger, acquisition or joint venture," said Mr Thomas of Systems Dynamics in a paper delivered earlier this month. "Such changes will characterise the industry throughout the 1990s."

He added, "for the user, the situation is equally fraught. Needing to improve his trading position and seeking security of supply, the attraction of buying service from an established and stable international vendor will be compelling."

What does appear certain is that the plain old telephone services - or "Pots" - as one consultant wagslightly once called it, will continue to grow, but that sophisticated value added services, provided on a global basis, will evolve in a way that would have astounded even the telephone's inventor.

World market for value-added network services (US\$bn)

Region	1988	1989	1990	1995
Europe				
UK	Information services 0.680	0.868	1.039	1.813
	Processing 0.038	0.068	0.098	0.172
	Messaging 0.030	0.144	0.215	0.403
	Other 0.022	0.040	0.064	0.112
	TOTAL 0.770	1.116	1.416	2.500
France	Information services 0.225	0.270	0.372	1.075
	Processing 0.034	0.054	0.081	0.282
	Messaging 0.048	0.074	0.170	0.450
	Other 0.019	0.024	0.034	0.190
	TOTAL 0.326	0.422	0.657	1.997
W Germany	Information services 0.240	0.310	0.381	0.910
	Processing 0.025	0.040	0.060	0.215
	Messaging 0.030	0.052	0.080	0.280
	Other 0.014	0.018	0.025	0.140
	TOTAL 0.309	0.420	0.546	1.545
Rest of Europe	Information services 0.505	0.679	0.875	1.342
	Processing 0.048	0.077	0.115	0.413
	Messaging 0.033	0.086	0.150	0.350
	Other 0.027	0.035	0.048	0.288
	TOTAL 0.613	0.887	1.188	2.393
USA	Information services 4.400	6.250	8.200	12.320
	Processing 0.404	0.981	0.982	3.048
	Messaging 0.520	1.240	1.580	2.820
	Other 0.229	0.326	0.477	1.583
	TOTAL 5.553	8.797	11.239	20.271
Japan	TOTAL 1.700	2.700	4.600	9.150
World	TOTAL 9.739	14.042	19.264	38.172

Source: Systems Dynamics' Value-Added Network Services Monitor.

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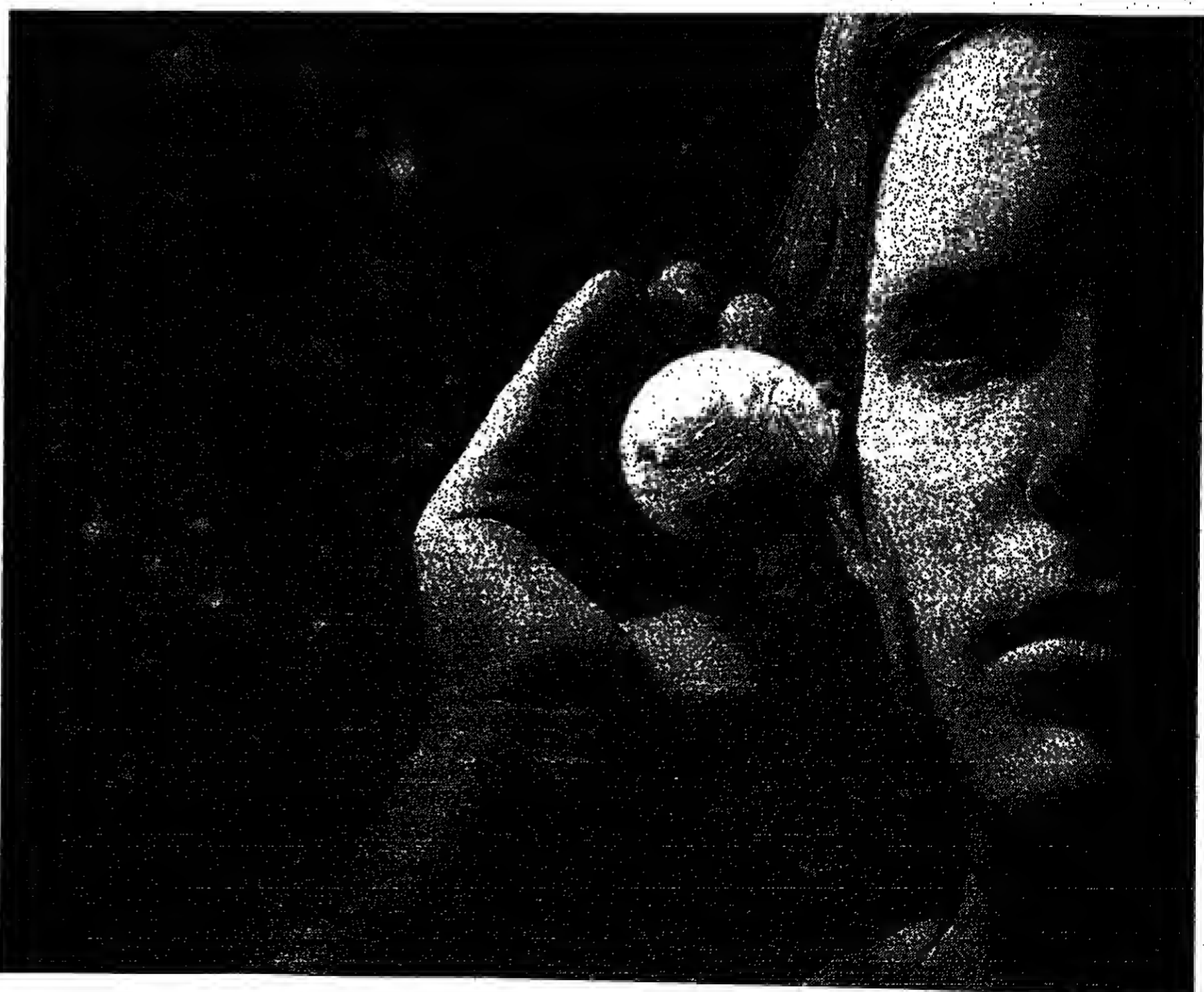
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FINANCIAL TIMES
COMPANIES & MARKETS

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INSIDE
Research gives way to marketing

DOW
Pharmaceuticals may be the quintessential science-based industry, where research and development costs typically absorb 10 per cent of revenues. But marketing and sales, not research laboratories, have become the key competitive weapons in the intensifying battle for global market share. This seems to be the main implication of the complicated two-stage merger deal formally signed yesterday between Marion Laboratories and Dow Chemical, writes Anatole Kalatsky. Page 24

Water, water everywhere

There can be few more lonely spots than the middle of the Timor Sea. Yet sometime in the next two months 60,000 barrels of oil a day will come bubbling from the sea-bed. Challis, Australia's newest oilfield, will come on stream and add its bounty to the 40,000 b/d from the Jabiru field, 20kms to the north. Page 30

Over the first hurdle

Anglo Unified has won the first round in its fight to win the support of institutional shareholders in Coalite, the fuel distribution business chaired by Eric Varley (left). The decision of the Prudential, one of the largest shareholders, to sell half of its holding to Anglo follows its disposal of its stake in Gateway to Isocetes and is being interpreted as a shift from its traditional policy of supporting existing management in contested takeovers. Ray Bashford reports. Page 27

Together under the sun

The European Community has its mind set on 1992; for the Caribbean the target year is 1993. By then the 13 members of the Caribbean Economic Community intend to have integrated their economies and created a common market. As a step towards this goal, the member nations have agreed to establish a regional capital market. Page 26

Vintage gains allure

Spiralists may have dominated the two large privatisation issues in Portugal this year, but they are not the only forgers with a keen eye on the potential of the Lisbon and Oporto stock markets. In Lisbon, volume last year, Portugal is rousing itself as the government's sell-off programme focuses attention on this emerging market. Page 42

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Chief price changes yesterday

FTSE 100	294.5	+ 2.8
FTSE 250	294.5	+ 2.8
FTSE 350	294.5	+ 2.8
FTSE 450	294.5	+ 2.8
FTSE 550	294.5	+ 2.8
FTSE 650	294.5	+ 2.8
FTSE 750	294.5	+ 2.8
FTSE 850	294.5	+ 2.8
FTSE 950	294.5	+ 2.8
FTSE 1050	294.5	+ 2.8
FTSE 1150	294.5	+ 2.8
FTSE 1250	294.5	+ 2.8
FTSE 1350	294.5	+ 2.8
FTSE 1450	294.5	+ 2.8
FTSE 1550	294.5	+ 2.8
FTSE 1650	294.5	+ 2.8
FTSE 1750	294.5	+ 2.8
FTSE 1850	294.5	+ 2.8
FTSE 1950	294.5	+ 2.8
FTSE 2050	294.5	+ 2.8
FTSE 2150	294.5	+ 2.8
FTSE 2250	294.5	+ 2.8
FTSE 2350	294.5	+ 2.8
FTSE 2450	294.5	+ 2.8
FTSE 2550	294.5	+ 2.8
FTSE 2650	294.5	+ 2.8
FTSE 2750	294.5	+ 2.8
FTSE 2850	294.5	+ 2.8
FTSE 2950	294.5	+ 2.8
FTSE 3050	294.5	+ 2.8
FTSE 3150	294.5	+ 2.8
FTSE 3250	294.5	+ 2.8
FTSE 3350	294.5	+ 2.8
FTSE 3450	294.5	+ 2.8
FTSE 3550	294.5	+ 2.8
FTSE 3650	294.5	+ 2.8
FTSE 3750	294.5	+ 2.8
FTSE 3850	294.5	+ 2.8
FTSE 3950	294.5	+ 2.8
FTSE 4050	294.5	+ 2.8
FTSE 4150	294.5	+ 2.8
FTSE 4250	294.5	+ 2.8
FTSE 4350	294.5	+ 2.8
FTSE 4450	294.5	+ 2.8
FTSE 4550	294.5	+ 2.8
FTSE 4650	294.5	+ 2.8
FTSE 4750	294.5	+ 2.8
FTSE 4850	294.5	+ 2.8
FTSE 4950	294.5	+ 2.8
FTSE 5050	294.5	+ 2.8
FTSE 5150	294.5	+ 2.8
FTSE 5250	294.5	+ 2.8
FTSE 5350	294.5	+ 2.8
FTSE 5450	294.5	+ 2.8
FTSE 5550	294.5	+ 2.8
FTSE 5650	294.5	+ 2.8
FTSE 5750	294.5	+ 2.8
FTSE 5850	294.5	+ 2.8
FTSE 5950	294.5	+ 2.8
FTSE 6050	294.5	+ 2.8
FTSE 6150	294.5	+ 2.8
FTSE 6250	294.5	+ 2.8
FTSE 6350	294.5	+ 2.8
FTSE 6450	294.5	+ 2.8
FTSE 6550	294.5	+ 2.8
FTSE 6650	294.5	+ 2.8
FTSE 6750	294.5	+ 2.8
FTSE 6850	294.5	+ 2.8
FTSE 6950	294.5	+ 2.8
FTSE 7050	294.5	+ 2.8
FTSE 7150	294.5	+ 2.8
FTSE 7250	294.5	+ 2.8
FTSE 7350	294.5	+ 2.8
FTSE 7450	294.5	+ 2.8
FTSE 7550	294.5	+ 2.8
FTSE 7650	294.5	+ 2.8
FTSE 7750	294.5	+ 2.8
FTSE 7850	294.5	+ 2.8
FTSE 7950	294.5	+ 2.8
FTSE 8050	294.5	+ 2.8
FTSE 8150	294.5	+ 2.8
FTSE 8250	294.5	+ 2.8
FTSE 8350	294.5	+ 2.8
FTSE 8450	294.5	+ 2.8
FTSE 8550	294.5	+ 2.8
FTSE 8650	294.5	+ 2.8
FTSE 8750	294.5	+ 2.8
FTSE 8850	294.5	+ 2.8
FTSE 8950	294.5	+ 2.8
FTSE 9050	294.5	+ 2.8
FTSE 9150	294.5	+ 2.8
FTSE 9250	294.5	+ 2.8
FTSE 9350	294.5	+ 2.8
FTSE 9450	294.5	+ 2.8
FTSE 9550	294.5	+ 2.8
FTSE 9650	294.5	+ 2.8
FTSE 9750	294.5	+ 2.8
FTSE 9850	294.5	+ 2.8
FTSE 9950	294.5	+ 2.8
FTSE 10050	294.5	+ 2.8

IBM profits rise sharply in second quarter

By Roderick Oram in New York
INTERNATIONAL Business Machines has turned in sharply higher earnings for the second quarter of this year, boosted by higher worldwide demand across its wide product range. The computer industry leader recovered to net profits of \$1.2bn, or \$2.31 a share, for the three months to the end of June. This compared with \$1.61 a share in a disappointing first quarter, when a chip manufacturing problem dented earnings. A year earlier, net profits were \$964m, or \$1.63 a share, including a \$900m, 61 cents a share, after-tax restructuring charge. The latest profits are in line with Wall Street forecasts and

slightly higher than the \$2.20 to \$2.30 range IBM had given recently as a guide to the investment community. None the less, its shares slipped 3/4 to \$115 1/2 yesterday morning against the backdrop of an overall weaker stock market. Analysts were disappointed that IBM, though never effusive at the best of times, released a barebones report lacking discussion of its product range or performance forecasts. Mr John Akers, chairman, said only: "We are pleased with the way our products are increasingly meeting the needs of customers and we continue to plan for growth."

Second quarter revenues increased 4.4 per cent to \$15.21bn from \$13.81bn a year earlier. "Customer response to our strategy of providing solutions has been very positive," said Mr Akers. "As a result we experienced double-digit revenue growth in both our US and non-US operations." Currency translation of foreign revenues, reflecting the strong dollar, reduced the overall growth in dollar terms. The first half net profit was \$2.2bn, or \$3.92 a share, against \$2.21bn, or \$3.73. Revenues grew by 7.6 per cent to \$27.94bn from \$25.97bn.

Net profit margins slipped slightly to 8.2 per cent in the first half from 8.5 per cent a year earlier. IBM continues to reap a growing reward for its cost cutting efforts of recent years involving rationalisation of plants and bureaucracy. In the second quarter, costs and expenses rose by only 3.8 per cent, while operating income increased 55.8 per cent to \$2.38bn from \$1.5bn. Analysts are looking for the second quarter net profit improvement to be repeated in the third quarter as the company continues to catch up with shipments lost during the first quarter because of the chip problem. Filing the delayed orders has been relatively slow because of IBM's tight production schedules. Wall Street is expecting a modest increase in full-year earnings per share to around \$10.50 a share, up some 7 per cent from a year earlier. The stock continues to perform poorly, standing only some 13 per cent over its low during the October 1987 market crash, while the Dow Jones Industrial Average has risen 46 per cent.

But strong demand for its AS/400 mid-range and PS/2 personal computers should help underpin fairly strong growth in earnings in coming years.

US stock exchanges in merger talks

By Deborah Hargreaves in Chicago
THE Philadelphia Stock Exchange disclosed yesterday that it is in talks with the American Stock Exchange and two other major US exchanges with a view to a possible merger. The talks are understood to have been going on for some time, but the PHILX stresses that the outcome is by no means certain. Mr Nicholas Giordano, president of the PHILX, said in a statement: "The truth is, our exchange has never had greater value. Our volume and profits were at record levels during the first half of the year."

Mr Giordano acknowledged that the PHILX had been involved in "ambitious" discussions with all three exchanges, but said there would be great difficulties in completing a combination. The PHILX is known to be discussing a merger with the Amex that would involve a move of its options business to New York. The PHILX is the premier market-place for currency options in the US and a combination with the Amex would create the US's second largest options market after the Chicago Board Options Exchange. The Amex averages some 200,000 contracts a day in its equity and index options market, while the PHILX trades some 100,000 currency and stock options a day. The CBOE, the industry leader, trades a daily average of about 500,000 options. The merger talks have been prompted largely by a drop in retail investor interest in options following 1987's market crash. A move by the Securities and Exchange Commission to open up the equity options business to more competition contributed to the interest in Philadelphia. The SEC's decision to allow multiple listing of options on US exchanges will make it more difficult for regional markets like Philadelphia to compete against the Amex and the CBOE. Philadelphia's strongest contribution to any merger will be its currency options business. Its success with currency options since their start-up in 1982 was underlined two years ago when the CBOE transferred to the PHILX a series of currency options it had set up in competition. This is not the first time that the regional stock exchanges have discussed a combination. "We are proceeding on the assumption that PHILX will be independent for at least another 100 years," Mr Giordano said yesterday.

Du Pont buys UK electronic printing business

By David Waller in London
DE LA RUE, the UK bank-note printer which suffered a severe drop in profits last year, yesterday announced the sale of its Crosfield Electronics printing technology subsidiary for \$265m (\$81m) in cash to Du Pont, the US chemicals conglomerate, and Fuji Photo Film. The disposal comes days after a public row between De La Rue and Mr Robert Maxwell, the British publisher. Mr Maxwell picked up 15 per cent of the company after the October 1987 stock market crash, and a further 6.1 per cent has been bought by Scher, an Israel-based competitor of Crosfield, which is 27 per cent

owned by Mr Maxwell's Mirror Group Newspapers. Scher made clear last week that it wanted to buy Crosfield. Du Pont has targeted the imaging systems business for growth. Until the Crosfield deal its expertise has been limited to black and white systems and a joint venture in colour imaging with Fuji. Mr Clifford Scher, business director for Du Pont's electronic imaging systems division, said: "Both Fuji and Du Pont are new to this market, in which we want to offer a full spectrum of colour pre-press equipment." In June this year, De La Rue indicated that it was looking for

a strategic partner for the business when it reported 1988-89 pre-tax profits down from \$22.2m to \$26.3m in June. Profits at Crosfield - which makes colour imaging and page composition systems used in newspaper production - were down from \$21.1m to \$23.2m. Mr John White, De La Rue's finance director, explained yesterday that, although Crosfield had been the engine of the group's growth during the present decade, its business was volatile and required too much capital expenditure to maintain its position in an increasingly competitive market.

The price obtained was higher than analysts' forecasts, which were in the region of \$150m. Net assets at the end of March were \$128m and the sale price is some 17.2 times historical earnings. De La Rue is also selling a leasing business with bank borrowings of \$40m, formerly guaranteed by De La Rue, but it is retaining Crosfield's press controls business, which hopes to make profits of \$2m this year. Scher was denied the information on Crosfield shown to other would-be buyers on the grounds that such data was commercially sensitive. De La Rue was assuming that a sale to Scher could

pose anti-trust problems. Mr Maxwell's response was to launch a market raid via Scher which gave the Israeli company 8.5m shares in De La Rue. The deal requires the approval of a majority of those attending an extraordinary general meeting scheduled for August 3. With this disposal, De La Rue sheds a difficult and cash-absorbing business - but also approaching half its turnover. Its remaining businesses will include the loss-making Printtrak finger-print identification business, security printing and bank-note printing. See, Page 20; Details, Page 29

Dalgety

Share price relative to the FT-A All-Share Index

Earnings per ordinary share

Dalgety gets a sudden taste for fresh blood

Christopher Parkes on the departure of chief executive Terry Pryce
Yesterday's blip in the Dalgety share price and the morning's turnover of around 2m shares suggests that the circling sharks had detected blood in the water. With no hint of an explanation, the food and agribusiness group had on Monday announced the end of Mr Terry Pryce's eight-year tenure as chief executive. This does not indicate any trouble... we simply got to the point where we needed to decide the long-term future," said Sir Peter Carey, Dalgety's chairman, who denied there had been a boardroom battle. Nevertheless, the move seems bound to revive the bid speculation which has periodically surrounded the company for years, and which has been given added plausibility by the recent emergence of the Australian entrepreneur, Mr Robert Holmes à Court, as a 2.5 per cent shareholder.

So just how and why did Mr Pryce step down, and what has been Dalgety's record under his leadership? It is understood that he was removed after a tense debate between directors about the future direction of the group and management succession. There was concern in the boardroom over the fact that the four most senior executive directors, Mr Pryce, Mr Peter Gattiner, who runs US operations, Mr Maurice Warren, in charge of Europe, and Mr Bruce Vaughan, head of Australian pastoral businesses, are all in their mid-fifties and approaching retirement age. The view grew that a new chief executive was needed to take the company into the 1990s - a decision akin to that of Sir Hector Laing who has nominated 36-year-old Mr Eric Nicol as his heir apparent at United Biscuits.

With all the non-executive directors and the rest of the board reportedly solidly behind the chairman, Mr Pryce was controversial last Friday. "It's not a split - not unless you can call 99-to-one 'a split'," claimed Mr David Laing, an analyst at Henderson Crosthwaite. Mr Pryce is being replaced by Mr Warren, the man credited with building Dalgety's animal feeds business to within an ace of challenging Unilever's BOCM for

Two UK undertakers agree merger plan

By David Waller in London
TWO OF the UK's three listed undertakers - Hodgson Holdings and Kenyon Securities - yesterday announced a merger via a complex deal which will leave Pompes Funeraires Generales, the French funeral director, with a 25 per cent stake in the new group. Mr Howard Hodgson, chairman of Hodgson and managing director designate of the new combine, explained that the merger was agreed against a background of declining mortality in the UK. This put pressure on the quoted companies to grow by acquisition, he explained. Given that some 70 per cent of the costs incurred in the funeral business were fixed, economies of scale could be achieved by putting businesses together, and the profit for each funeral could rise dramatically. The new group would also expand internationally, he said. Pompes - itself a subsidiary of

Lyonnaises des Eaux, the second biggest French water company - bought a 29.2 per cent stake in Kenyon in June last year. The merger of the two groups is to be brought about via a takeover of both the companies by a new vehicle called PHX International. Shareholders in both the UK companies are being offered one new share in PHX for one share held in either Hodgson or Kenyon, plus cash for between 20 and 50 per cent of existing holdings. City observers found it difficult to make sense of the offer, as the terms are the same for both the companies despite the fact that they enjoy different market ratings and are of different sizes. Including two convertible issues, Hodgson was capitalised at \$53m (\$102m) last night, with Kenyon at \$28m. The price put on Hodgson by the deal was 8 1/2 times prospective earnings, compared to 15 times for Kenyon.

Lyonnaises des Eaux, the second biggest French water company - bought a 29.2 per cent stake in Kenyon in June last year. The merger of the two groups is to be brought about via a takeover of both the companies by a new vehicle called PHX International. Shareholders in both the UK companies are being offered one new share in PHX for one share held in either Hodgson or Kenyon, plus cash for between 20 and 50 per cent of existing holdings. City observers found it difficult to make sense of the offer, as the terms are the same for both the companies despite the fact that they enjoy different market ratings and are of different sizes. Including two convertible issues, Hodgson was capitalised at \$53m (\$102m) last night, with Kenyon at \$28m. The price put on Hodgson by the deal was 8 1/2 times prospective earnings, compared to 15 times for Kenyon.

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INTERNATIONAL COMPANIES AND FINANCE

Good quarter for US drugs groups

By Karen Zagor in New York

WARNER-LAMBERT, the US pharmaceutical and non-prescription health products group which produces Listerine, yesterday reported a 22.6 per cent increase in second quarter net earnings to \$112.4m or \$1.66 a share against \$91.6m or \$1.35 a year earlier.

Revenues rose 8 per cent to \$1,020m from \$951.5m. For the first half, net income jumped 21.9 per cent to \$218.4m or \$3.15 cents a share from \$176.1m or \$2.57 the previous year. Sales advanced 8.7 per cent to \$2,040m from \$1,890m.

"This continues to be one of the strongest periods of sustained growth in Warner-Lambert's history," said Mr Joseph Williams, chairman and chief executive.

He added that each of Warner Lambert's major businesses - ethical pharmaceuticals, over-the-counter health care products and confectioneries - contributed to the recent gains.

Worldwide sales of the company's ethical pharmaceutical products rose 9 per cent in the quarter to \$323m, led by the cardiovascular drugs Lopid and Dilzem. US sales for the sector jumped 19 per cent.

Worldwide sales of non-prescription health care products rose more than 8 per cent to \$316m. Confectionery sales advanced 11 per cent to \$269m, led by Trident sugarless gum and Clorets gum and breath mints.

Upjohn, the US pharmaceutical company which recently started marketing its anti-baldness drug, Rogaine, also reported improved second quarter earnings.

Net income improved 8 per cent to \$94.6m or 51 cents a share from \$87.8m or 47 cents. Sales rose 2.1 per cent to \$736.5m from \$721.6m.

For the first six months, net income was up 7.9 per cent to \$197.6m or \$1.07 a share on sales of \$1,490m from \$139.2m

or 96 cents on sales of \$1,380m the previous year.

Operating income for the quarter fell 7 per cent to \$121m and amounted to 16 per cent of sales. For the first half, operating income was down 3 per cent.

Total US sales for the quarter rose 5 per cent to \$454m. Foreign sales, which accounted for 38 per cent of consolidated sales, fell 3 per cent to \$283m. Overseas sales were hurt by the strong dollar. Consolidated sales were helped by a 5 per cent price rise.

The company hopes to benefit from a US Food and Drug Administration ruling which prohibits companies from making unsubstantiated claims that their over-the-counter products can grow hair or prevent hair loss.

Mr Theodore Cooper, chairman and chief executive, said "This action by the FDA reinforces our position that Rogaine is the only scientifically proven

treatment for hair loss."

American Home Products, another leading manufacturer of prescription and ethical drugs, reported a 10 per cent increase in second-quarter net income to \$236.7m or \$1.61 per share against \$215.8m or \$1.48 the year before. Sales rose 2 per cent to \$1,400m from \$1,370m.

For the first half, net income rose 11 per cent to \$500.5m or \$3.41 cents a share from \$452.9m or \$3.10 cents a year earlier. Sales were \$2,920m against \$2,780m.

Net sales of health care products rose 1 per cent for the quarter and 4 per cent for the first six months. Sales of food and household products rose 6 per cent for the quarter and 8 per cent for the first half.

The New York company said sales for the quarter were hurt by unfavourable exchange rates for foreign operations. However, this was partially offset by cuts in foreign tax.

WH Smith to buy Waterstone for £42m

By Maggie Urry in London

W.H. SMITH, the UK retailing group, is to increase its share of the British book market from about 17 to 20 per cent through a phased deal to buy the Waterstone's chain of book shops for at least £42.2m (\$68m).

Smith is to merge Sherratt & Hughes, its own specialist book shop chain, with the Waterstone's chain. The Sherratt & Hughes shops will take the Waterstone's name and the merged company will be chaired by Mr Tim Waterstone.

He founded Waterstone's in 1982 after being sacked by W.H. Smith and he has built it up to a 30-shop chain noted for good design and service and a wide range of stock.

Mr Waterstone said he had decided to sell the business because it could not fund its fast rate of expansion internally. Smith approached him on May 23, he said, with a "very skilfully prepared offer" and negotiations were rapidly concluded.

Banesto takes Portuguese partner in Banco Totta deal

By Diana Smith in Lisbon

BANESTO, Spain's third largest bank, has lined up with a new Portuguese group headed by the financier Mr Jose Roquette to acquire a substantial shareholding in Banco Totta e Acores (BTA), the Portuguese state-controlled bank which sold 49 per cent of its capital to the public earlier this month.

BTA, nationalised in the 1975 revolution, is expected eventually to be completely privatised.

Mr Xavier Abad, director-general of Banesto's international department of Banesto, said in Lisbon yesterday that his bank was seeking alliances throughout south-western Europe in preparation for 1992's single market.

He added that Portugal was a top priority because of the impressive growth of economic relations between Spain and Portugal.

In future, Mr Abad said, Banesto would seek alliances with banks in the south of France and in northern Italy to build up a strong European network.

Because of Portuguese legal restrictions on acquisition by foreigners of more than 5 per cent of the capital of privatised state-run institutions, Banesto was obliged to seek a Portuguese partner.

Banesto chose Mr Roquette's group because it was prepared to bring its own financial contribution to the association. Other Portuguese groups are known to have been interested in a partnership with Banesto but apparently they were not prepared to put up sizeable funds.

As a result of the partial privatisation, Banesto holds 3.32 per cent of BTA's capital after a successful but expensive block purchase which cost it £4,400 per share, more than twice the basic asking price.

The Roquette group initially acquired 7.88 per cent but since the share offer began it has built up its holding through discreet purchases to 10 per cent.

This gives the group and Banesto a combined stake of more than 13 per cent of BTA and, they hope, at least one

seat on BTA's new board.

According to Mr Abad, Banesto and the Roquette group will now form a holding company which will not only handle their BTA acquisition but will in future look for other opportunities in Portugal, possibly in the industrial area, and serve as a springboard to develop new products for BTA, including brokerage and other firms.

It is understood that BTA is quite receptive to the idea of an association with Banesto; the alliance might also permit the Portuguese bank to penetrate the Spanish market and even take shares in future in Banesto if it so desired.

Banco Hispano-Americano also tried to acquire a sizeable enough share of BTA to permit it to form an association similar to the one contemplated by Banesto.

But the combined forces of Mr Roquette and Banesto were too much for it. This bank is likely to try again when other Portuguese nationalised banks are privatised in the next couple of years.

AECI confident after smart first-half gain

By Jim Jones in Johannesburg

AECI, South Africa's largest diversified chemicals group, lifted sales by a quarter in the six months to June and profits benefited from rationalisation on the domestic fertiliser side.

First-half turnover increased to R2,260m (\$830.1m) from R1,810m and the pre-tax profit was R202m against R145m. Mr Mike Sander, the chairman, says domestic sales volumes rose by 10 per cent helped by the introduction of additional capacity at the Complex plastics plant and the acquisition late in 1988 of a competitor's fertiliser interests.

He believes earnings will increase further during the second half of the year provided there is a reasonably stable business environment in the industrial and mining sectors. He warns, however, that the profit growth rate of 1988 is unlikely to be repeated.

Net earnings increased to 94 cents a share from 61 cents and the interim dividend has been lifted to 30 cents from 25 cents. Last year's full earnings were 165 cents and the dividend totalled 75 cents.

Comit link set to go through

By John Wyles in Rome

MR ROMANO PRODI, chairman of Iri, the Italian state holding company, appears to have mustered enough votes to secure board approval today of the exchange of shareholdings between Banca Commerciale Italiana (Comit) and Paribas of France.

The deal was surprisingly blocked three weeks ago after representatives of four of Italy's five governing parties abstained on the grounds that a study was needed of BCI's overall strategy.

Iri has a 59 per cent stake in Comit and will be surrendering a 2 per cent block through the deal with Paribas. BCI is to acquire its Paribas shares in the open market.

Yesterday, both Liberal and Social Democratic Party spokesmen said their representatives would be voting for the deal today and the Republican nominee is also expected to follow suit.

Mr Massimo Pini of the Socialist Party, the most frequent opponent of Prodi initia-

tives, also said yesterday that the Iri chairman would have to resign if he lost today's vote.

It is still not altogether clear why the political nominees abstained at the last meeting. Mr Pini appears to believe that there is a plot afoot quietly to privatise Comit and that the Paribas agreement is the first step.

This is despite the fact of a formal Iri board decision that the holding company's stake will not be allowed to fall below 51 per cent.

Write-off hits Intel profits

By Louise Kehoe in San Francisco

INTEL, the US semiconductor manufacturer, plans to close one of its manufacturing plants in California, taking a charge against second-quarter earnings, which were reported yesterday.

Net income in the quarter was \$99m or 53 cents per share against \$130.7m or 73 cents in last year's second quarter. Revenues were \$747m, up from \$737m a year earlier.

This year's second-quarter earnings were reduced by a

\$17m pre-tax charge to cover costs associated with the planned closing of the company's wafer fabrication plant in Livermore, California.

The company said orders received in the second quarter were up from those in the first quarter and that new orders for its latest microprocessors were particularly strong.

Commenting on the plant closure, Dr Andrew Grove, president and chief executive, said the plant was the com-

pany's oldest. The 400 people employed at the Livermore plant will be offered jobs elsewhere in the company, Intel said.

Intel's stock fell from \$31 1/2 to \$29 in heavy trading on the profits news.

For the six-month period, revenues rose to \$1,500m from \$1,400m. Net income was \$196.3m or \$1.05 per share compared to \$224.4m or \$1.27 per share in the same period last year.

Puma sees profitable year after first-half recovery

By Our Financial Staff

PUMA, the West German manufacturer of sports shoes and clothing, expects to make a profit in the 1989 calendar year, after breaking even last year.

The group's net profit in the first half of 1989 totalled DM2m (\$1m), after a net loss of DM11.1m in the same period last year, announced Mr Hans Witschätzke, the management board chairman.

First-half sales reached DM286.8m and parent company sales DM217.5m, he said. Group sales in the whole of 1988 totalled DM788m, down from DM850m in 1987, when Puma made a DM32.5m loss.

"We have turned the corner," Mr Witschätzke told the annual shareholders' meeting, although he made no exact profit forecast.

Drastic cost cuts, trimming the product range and cuts in warehouse stocks were responsible for improving Puma's

prospects this year, he continued.

© Franz Handl, a diversified West German trading and transportation company, said it has signed a preliminary agreement to purchase Gateway Foods, a Wisconsin-based wholesale and retail food company. Terms were not disclosed.

Handl said it expects its Oklahoma City-based wholesaler subsidiary Scrivner to reach final agreement with Gateway Foods by the end of August.

Gateway Foods is not related to Gateway Corp, Britain's third-largest food retailer, which has been the subject of a takeover fight in recent months.

Handl said that both US companies complement each other geographically. Scrivner had 1988 sales of about \$30m, while Gateway Foods sales amounted to about \$20m.

UK footwear retailer accepts Clayform bid

By Philip Coggan in London

STEAD & SIMPSON, the UK footwear retailer, yesterday agreed to a £120m (\$194m) cash takeover by Clayform Properties, just a year and a day after narrowly escaping a hostile bid from the property group.

Mr Peter Gee, Stead & Simpson's chief executive, said that "a lot of things are said in the course of a hostile bid but since then we've had a chance to sit down and talk to the Clayform people."

Clayform offered £108m for the group last year. However, non-voting "A" shareholders in Stead & Simpson are only being offered 123p per share, plus a 6p net dividend paid from Stead & Simpson's own resources, as against 151p last year.

Voting shareholders are being offered £21.55p per share, compared with the previous 14.50.

New Issue July 19, 1989

BULGARIAN FOREIGN TRADE BANK
Sofia, People's Republic of Bulgaria

DM 200,000,000
8½% Bearer Bonds of 1989/1996

Issue Price **100%**

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Dresdner Bank
Aktiengesellschaft

Baden-Württembergische Bank
Aktiengesellschaft

Banque Paribas Capital Markets GmbH

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Bank Brussel Lambert N.V.

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Société Générale - Elsassische Bank & Co.

DG BANK
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Bank of Tokyo (Deutschland)
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Dongsuh Securities Co., Ltd.

Istituto Bancario San Paolo di Torino

The Nikko Securities Co. (Deutschland) GmbH

Société Générale - Elsassische Bank & Co.

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This announcement appears as a matter of record only June 1989

Elkem

Elkem a/s

US\$ 100 Million

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as Co-Lead Managers

Kansallis Banking Group **Union Bank of Switzerland**

Banque Internationale à Luxembourg
Société Anonyme
as Managers

and

Den norske Creditbank **THE ROYAL BANK OF CANADA**
as Facility Agent as Tender Agent and as Issue Agent

INTERNATIONAL COMPANIES AND FINANCE

Increased trading volume boosts US securities firms

By Janet Bush in New York

SEVERAL Wall Street securities firms reported improved second quarter earnings yesterday, reflecting higher trading volume in stock and bond markets, and booming business in the merchant banking business for some.

Merrill Lynch, with a substantial retail business as well as a highly developed merchant banking group, reported net earnings in the second quarter of \$70.2m, or 62 cents a share, a 31 per cent gain from a year earlier when net earnings totalled \$53.5m or 47 cents.

This is an impressive recovery from the doldrums of the three months to March 31 when earnings per share halved to 31 cents, against the first quarter of 1988.

Mr William Schreyer, chairman, and Mr Daniel Tully, president, said the latest results underscored the value of the company's "one-firm,

two-sector business." They said there were solid revenue increases in virtually all areas of its consumer business including commissions, insurance and asset management.

Merrill Lynch Capital Markets continued to perform strongly in principal transactions and in merchant banking and retained its number one ranking in the global and domestic underwriting of debt and equity securities.

Commission revenues advanced 18 per cent to \$462m, while investment banking revenues fell 8 per cent.

Morgan Stanley announced earnings of \$112.1m or \$2.83 in the second quarter, compared with \$135.3m or \$3.52 a year earlier. News of a 37.5 cents a share quarterly dividend, an increase of 22.2 per cent from previous pay-outs, helped the shares to a gain of 11% at mid-session to \$70.

Net revenues were \$831.6m, including a pre-tax gain of \$51.5m principally from the restructuring of the investments in Essex Group and Sillman Corp. In the second quarter, 1988, revenues totalled \$619.4m, including a hefty pre-tax gain of \$123.7m from the Chemicals investment. The company's top three executives said the favourable operating performance reflected the balanced mix of Morgan Stanley's worldwide business.

PalmerWebber Group reported net second quarter earnings of \$15.1m, against \$159,000 a year earlier, representing earnings of 33 cents, compared with a loss of 22 cents a year earlier.

Mr Donald Maron, chairman, said the results reflected better market conditions and progress in improving the economics of the firm itself.

Demand for Macintosh computers lifts Apple

By Louise Kehoe in San Francisco

APPLE COMPUTER is confident that sales of its personal computer products will top \$5bn in fiscal 1989 as demand for its latest Macintosh models continues to rise.

Third quarter results, reported yesterday, show a 26 per cent rise in revenues to \$1.2bn, up from \$993m. Reduced profit margins brought net income to \$96.1m or 74 cents per share for the quarter, compared with \$91.3m or 71 cents in the same period last year.

The stock market reaction to Apple's slowing earnings growth pushed the company's share price down by \$1.50 to \$39.4, in heavy trading.

"Throughout fiscal 1989 our product costs have been adversely affected by higher component costs, most notably dynamic random access memory (DRAM) chips," said Mr John Sculley, Apple chairman. Earlier in the year Apple revealed that it had a surplus of DRAMs purchased at peak prices during last year's chip shortage.

Dow falls for Marion's potent marketing allure

Anatole Kaletsky on a US merger

IT'S all in the marketing. This old slogan, familiar from the heyday of the US consumer products companies when salespeople from Coca-Cola, Ford and Kellogg's took the world by storm, is becoming the unexpected battle cry of a quite different breed of international companies now vying for world domination.

Pharmaceuticals may be the quintessential science-based industry, where research and development costs absorb typically 10 per cent of revenues and every "consumer" has a doctor's degree. But marketing and sales forces, not research laboratories, have become the key competitive weapons in the intensifying battle for global market share.

This seems to be the main implication of the complicated two-stage merger deal formally signed yesterday between Marion Laboratories and Dow Chemical. More than any of the previous alliances in the consolidating world pharmaceuticals industry, this deal has put a clear - and unexpectedly high - value on the ability to sell new drugs.

compound annual rate of around 40 per cent. By 1987 Marion's market value had multiplied 20-fold in five years to \$6bn.

However, by mid-1987 investors at large began to notice the dark cloud over Marion's future. Garafate had already lost its patent protection and Cardizem was due to go off-patent in November 1982. While Marion then had the cash to acquire other formulations from drug companies, there was nothing that seemed to match the promise of Cardizem and Garafate.

"To say that Marion did not have much would be an understatement. It had, and has, absolutely nothing in the pipeline," says Mr Hamant Shah, a pharmaceutical analyst at HKS & Co in Warren, New Jersey.

Why then is Dow Chemical now willing to pay what will amount to almost \$4bn in cash and merge its own successful pharmaceuticals subsidiary, Merrell Dow, with Marion, in exchange for a 67 per cent stake in the combined group?

The answer seems to be the threat of First through Merrell's 2,000-strong sales force. Marion's sales staff will triple Merrell Dow's sales effort in the US, and turn a company which is much stronger overseas than it is in America into a globally balanced operation, which will rank about fifth in sales among US drug companies and in the top 10 worldwide, according to Mr Shah.

Second, Marion has a valuable capability for testing, refining and winning US licences for existing drugs. While Marion does no original research, it has spent heavily on developing and refining its existing products. Its development spending alone is higher than the R&D commitment of most drug companies.

Then, through a combination of good luck and judgment, the company stumbled in the early 1980s on two drugs developed in Japan whose market potential nobody had begun to suspect. These drugs were Cardizem, a calcium channel blocker used for the treatment of heart disease and high blood pressure, and Cardafate, an anti-ulcer drug which turned out to be an attractive alternative for patients who reacted badly to other ulcer treatments such as Zantac and Tagamet.

Although these drugs were not new, the anti-ulcer and cardiovascular treatments which they provided were just beginning to find acceptance among physicians, partly as a result of Marion's effective selling. Both markets suddenly took off at a very valuable asset.

Finally, there are the drugs Merrell Dow has discovered itself, which it will be able to push into Marion's development and marketing pipeline.

While Merrell Dow has no blockbuster, it has "a reasonable portfolio of new products," according to Mr Shah. Without Merrell's US marketing strength, Merrell Dow itself would not have been a viable competitor in the consolidating drug industry of the next decade, he says.

Johannesburg Consolidated Investment Company, Limited

GROUP GOLD MINING COMPANIES
Summary of reports for the quarter ended 30 June 1989

Randfontein Estates
The Randfontein Estates Gold Mining Company, Witwatersrand Limited Registered in South Africa

	Quarter ended 30.06.89	31.03.89
Ore milled: tons (000)	2,216	2,155
Yield: grams per ton	3.00	2.90
Working cost - per ton milled	R17.89	R17.22
	R902	R902
Profit from gold	42,826	29,659
Net profit after tax	43,894	31,948
Capital expenditure	33,849	11,391

Western Areas
Western Areas Gold Mining Company Limited Registered in South Africa

	Quarter ended 30.06.89	31.03.89
Ore milled: tons (000)	965	1,007
Yield: grams per ton	3.09	3.23
Working cost - per ton milled	R116.89	R111.83
	R992	R992
Loss from gold	11,925	8,901
Capital expenditure	12,903	10,622

H. J. Joel
H. J. Joel Gold Mining Company Limited Registered in South Africa

	Quarter ended 30.06.89	31.03.89
Ore milled: tons (000)	98	79
Yield: grams per ton	3.2	3.2
Capital expenditure (R'000)	32,034	21,620
Roof metres sampled	414	318
Average reef width: cm	45	44
Centimetre-grams per ton	1,057	948

Randfontein's working cost per ton has been kept constant while throughput has increased and average grades have improved.

Western Areas experienced increased unit costs and decreased tonnage. Results are expected to improve as higher-grade reserves are mined on the VCR.

Joel's metallurgical plant capacity is now 80 000 tons per month and the build-up of sloping tonnage is proceeding as planned.

Elsburg Gold Mining Company Limited. Shareholders are advised to study the operating results of Western Areas Gold Mining Company Limited.

Quarterly reports have been mailed to the shareholders of each company. Copies of the reports may be obtained from: Barnato Bros Limited, 99 Bishopsgate, London EC2M 3XE.

Johannesburg
16 July 1989

Citicorp rises 10% to \$395m

By Roderick Oram in New York

CITICORP, Wells Fargo and Continental, three money centre bank holding companies, have reported increased second quarter profits for reasons ranging from buoyant consumer banking to strong US loan demand.

Citicorp, the largest US banking group, turned in net profits for the three months ended June of \$365m, or \$1.11 a share, up 10 per cent from \$336m, or \$1.03, a year earlier. Revenues were ahead 7 per cent at \$3.32bn against \$3.11bn. First half net was \$624m, or \$2.63 a share, up 23 per cent from \$517m, or \$2.04, a year earlier, on revenues of \$6.58m against \$6.15bn.

Citicorp said that the earnings growth reflected continuing strength in its consumer banking business around the world and local currency business in emerging economies. Net income from this sector jumped to \$208m in the quarter from \$165m.

Revenues were weak in corporate and investment banking in the main industrial economies because of lower venture capital gains and trading results.

New commercial loans increased by \$49m during the latest quarter to \$2.45bn, with US commercial real estate loans contributing \$1.15bn, up more than 20 per cent from a year earlier.

Wells Fargo, the ninth largest US banking group, reported an 18 per cent increase in second quarter net profits to \$147.4m, or \$2.28 a share, from \$124.4m, or \$2.24, reflecting strong loan demand in the US. Net interest income rose to \$51.5m from \$48.1m while non-interest income jumped by

25 per cent to \$211.7m.

The group had no medium or long term loans outstanding to developing countries at the end of the quarter. Short term loans to them totalled \$153m, or 0.3 per cent of total assets. Restructured and non-accruing real estate loans, all in the US, totalled \$1.2bn, or 3 per cent of total assets.

Continental Bank of Chicago reported a 6 per cent rise in second quarter net income to \$64m, or \$1.01 a share, from \$60m, or 95 cents, a year earlier. Revenues rose to \$299m from \$277m.

Total assets were \$31.8bn at June 30, down from \$32.4bn a year earlier. Return on assets edged ahead to 0.83 per cent from 0.79 per cent. Corporate finance revenues totalled \$151m in the latest quarter, up 12 per cent from \$135m a year earlier.

The increase was due mainly to higher fees from loan syndication and distribution activities.

increased from \$32.8m in the second quarter of 1988 to \$38.3m in the like period this year.

Marketing and administrative expenses also were up, from \$24.2m to \$32.2m, mainly due to increasing the size of the sales force for Activase marketing efforts.

For the six month period, net income fell sharply to \$17m or 20 cents from \$30.6m or 36 cents on revenues which rose to \$189m from \$163.7m.

R&D costs hurt Genentech

Louise Kehoe in San Francisco

GENENTECH, the leading US biotechnology company, saw second quarter earnings fall as it continued to spend heavily on new product development and marketing, despite flattening sales of its main product, a genetically engineered heart attack drug.

Second quarter earnings were \$9.6m or 11 cents per share, against \$15.5m or 18 cents last year. Revenues, including from contract research, were \$97.9m, up 9 per

cent from \$89.3m last year. Net product sales were \$79.1m, against \$75.1m a year ago. Genentech said sales of its heart attack drug, Activase, or tissue plasminogen activator (t-PA), were \$45m, against \$49.2m.

Sales of Protopin, a genetically engineered version of human growth hormone, were \$81.1m, up from \$25.5m in the year-ago quarter.

Genentech's research and development expenses

increased from \$32.8m in the second quarter of 1988 to \$38.3m in the like period this year.

Marketing and administrative expenses also were up, from \$24.2m to \$32.2m, mainly due to increasing the size of the sales force for Activase marketing efforts.

For the six month period, net income fell sharply to \$17m or 20 cents from \$30.6m or 36 cents on revenues which rose to \$189m from \$163.7m.

Newsprint price fall hits Canadian forestry groups

By David Owen in Toronto

THREE LARGE Canadian forest products companies reported sharp downturns in quarterly earnings due to sagging newsprint prices and adverse currency fluctuations.

Second quarter income at Abitibi-Price, Noranda Forest and MacMillan Bloedel tumbled by 47 per cent, 17 per cent and 28 per cent respectively.

Analysts attributed the magnitude of the decline at Toronto-based Abitibi to its particularly large exposure to the newsprint sector.

Abitibi - controlled by the Reichmann brothers' Olympia & York Developments - earned C\$28.6m (US\$24.2m) or 39 cents a share, against C\$54.4m or 76 cents a year earlier. Sales dipped marginally to C\$830.2m, from C\$835.5m.

In the six months to June 30, income totalled C\$55.1m or 74 cents on revenues of C\$1.64bn, compared with C\$98.5m or C\$1.57 on unchanged revenues.

Second quarter profits at Noranda Forest, one of the Bronfman family's Brascan stable of companies, tumbled

to C\$69m or 55 cents from C\$71m or 69 cents a year ago while revenues advanced to C\$1.27bn from C\$1.25bn in 1988.

In addition to the strong Canadian dollar and lower newsprint prices, the group was also hit by rising costs in its British Columbia operations.

For the six months to June 30, earnings dropped to C\$17m or C\$1.10 on revenues of C\$2.47bn, from C\$134m or C\$1.29 on revenues of C\$2.4bn.

Net second quarter earnings at MacMillan Bloedel declined to C\$68.3m or 61 cents fully diluted, from C\$94.5m or 85 cents in 1988. Revenues at the Vancouver-based company, owned 49.9 per cent by Noranda Forest, rose just over 1 per cent to C\$622m from C\$615.6m.

For the six-month period, profits were C\$141.7m or C\$1.27 a share on sales of C\$1.67bn, against C\$156.1m or C\$1.67 on sales of C\$1.65bn a year earlier. The company said pressure on newsprint prices was offset by pulp price increases.

Alcan ahead at \$513m midway

Robert Gibbons in Montreal

ALCAN ALUMINIUM of Canada is seeing signs of weakness in some major North American markets for primary and semi-fabricated aluminium, says company chairman Mr David Morton.

Demand in other parts of the world continues to grow, though at a slower rate.

Alcan's sales volume for the second quarter of 1989 was generally good. Volume for the last half was US\$4.6bn against \$4.12bn a year earlier.

First half net income was \$513m or \$2.21 a share, up from \$418m or \$1.89 a year earlier.

In the second quarter, sales were US\$2.3bn against \$2.19bn and net income \$244m or \$1.05 a share against \$248m or 98 cents a year earlier.

The latest period includes a special gain of 29 cents a share from a transaction related to the Japanese affiliate Nippon Light Metal.

Discounts slow Weyerhaeuser

By Karen Zagor in New York

WEYERHAEUSER, the US forest products group, yesterday reported a modest advance in second quarter earnings, indicating weakness in the US paper industry.

For the three months to June 25, net income rose 3 per cent to \$154.9m or 73 cents a share from \$150.7m or 72 cents. Revenues rose 3 per cent at \$2.64bn against \$2.45bn.

For the first half, net income advanced 14 per cent to \$303m or \$1.43 from \$265.4m or \$1.26 on revenues up 8 per cent to \$4.97bn.

Mr George Weyerhaeuser, president and chief executive, said the newsprint business was hurt by discounting in the western US markets, lower export prices and increased costs for material and energy. He added that pricing in the

pulp and paper markets remained strong.

In forest products, high demand for western products in domestic and overseas markets was partly offset by weakness and soft pricing in the eastern and southeastern states.

The company said its real estate group posted improved earnings with first-half results more than double those of the 1988 period.

Scott Paper, the world's largest producer of toilet tissue, paper towels and paper napkins, saw net income drop 5 per cent to \$71.5m in the second quarter to July 1. Earnings per share were 93 cents, against 98 cents a year earlier. Sales rose 7.7 per cent to \$1.25bn.

For the first half, net income

advanced 6.8 per cent to \$158.0m or 40 cents from \$148.3m or 37 cents on sales ahead 10.2 per cent to \$2.52bn from \$2.29bn.

Mr Phillip Lippincott, chairman and chief executive, said: "Our US tissue business had excellent results in the second quarter. Scott's printing and publishing papers business also showed improvement, although well below expectations."

The company's performance was hit by higher pulp and other manufacturing costs, a difficult environment in Mexico, slow progress in implementing Scott's food-service business strategy and a loss of earnings due to last year's sales of Scott's interest in Brunswick Pulp and Paper company.



Topdanmark A/S
Euro-equity
Issue of 600,000 Shares of DKK 100 each
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Deutsche Bank
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Enskilda Securities
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Andelsbanken **Den Danske Bank** **Handelsbanken** **Sparekassen SDS**

BSI - Banca della Svizzera Italiana
Banca del Gottardo
Handelsbank NatWest
Bank Leu AG
Swiss Cantobank (International)

Creditanstalt-Bankverein
U.S. \$125,000,000
Subordinated Floating Rate Notes 1994

For the six months 17th July, 1989 to 17th January, 1990 the Notes will carry an interest rate of 8 1/4% per annum and coupon amount of U.S. \$2.26 81 payable on 17th January, 1990.

Bankers Trust Company, London
Agent Bank

TSB Hill Samuel Bank
Holding Company plc
(Formerly Hill Samuel Group plc)

US\$100,000,000
Floating Rate Notes due 2016

In accordance with the provisions of the Notes, notice is hereby given that for the Interest Period from 19th July, 1989 to 19th January, 1990 the Notes will carry a rate of interest of 9 1/4% per annum and that the interest payable on the relevant Interest Payment Date, 19th January, 1990 will amount to US\$475.97 per US\$1,000 Note and US\$1,299.51 per US\$250,000 Note.

Agent Bank
Morgan Guaranty Trust Company of New York
London

Den Danske Bank
AF1871 AS
¥4,000,000,000
Floating Rate Notes
Due 1994

Notice is hereby given that the Rate of Interest for the Interest Period from 19th July, 1989 to 19th January, 1990 is 5.07% per annum.

Interest payable on 19th January, 1990 will amount to ¥255,584 per ¥10,000,000 principal amount of the Notes.

Agent Bank
The Long-Term Credit Bank of Japan, Limited
Tokyo

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DES PETITES ET MOYENNES ENTREPRISES
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Guaranteed Floating Rate Notes
Due 1996

For the six months 17th July, 1989 to 17th January, 1990 the Notes will carry an interest rate of 8 1/4% per annum and Coupon Amount of U.S. \$48.47 per U.S. \$10,000 Note, payable on 17th January, 1990.

Bankers Trust Company, London
Agent Bank

SCA CAPITAL CORPORATION B.V.
ECU 101,000,000
4 1/4 per cent Guaranteed Convertible Bonds 2004 (the "Bonds") guaranteed on a subordinated basis by, and convertible into Non-Restricted Class B Shares of, Svenska Cellulosa Aktiefondet SCA

NOTICE TO BONDHOLDERS
In accordance with the Notice to Bondholders published on May 8, 1989, notice is hereby given that proposals for the bonus issue and subdivision of shares were duly approved at the Annual General Meeting of Shareholders, held on May 29, 1989.

Accordingly:

- each holder of either A or B shares in the Company on the register at close of business on July 6 will hold three such shares, each of a nominal amount of Swedish Kronor 10, for each share of a nominal amount of Swedish Kronor 25 previously held, each such share of Swedish Kronor 10 to be of the same class and designated non-restricted or restricted in the same manner as the share previously held, and
- the adjusted Conversion Price applicable to the Bonds from and including July 7, 1989, will be Swedish Kronor 135 per non-restricted B share.

Sundsvall in July 1989
The Board of Directors

NOTICE OF NEW RATES
Also in accordance with the bonus issue and subdivision of shares adjustments have been made as follows:

Convertible bond loan 1983/93:
New conversion rate: SEK 34
Convertible bond loan 1987/95:
New conversion rate: SEK 104.20
Subordinated bond loan with detachable warrants series 1 1983/93:
New subscription price: SEK 34
New number of shares: 12.09

The new rates will be applied on conversions and subscriptions beginning on July 7, 1989.

SCA Svenska Cellulosa Aktiefondet SCA

The Bank of Nova Scotia
U.S. \$200,000,000
Floating Rate Debentures
due July 1994

For the six months 17th July, 1989 to 17th January, 1990 the Debentures will bear an interest rate of 8 1/4% per annum with a coupon amount of U.S. \$45.61 payable 17th January, 1990.

Bankers Trust Company, London
Agent Bank

Manufacturers Hanover Corporation
U.S. \$100,000,000
Floating Rate Subordinated Notes due 1997

In accordance with the provisions of the Notes, notice is hereby given that the Notes will carry an interest rate of 8 1/4% per annum for the period 17th July, 1989 to 17th October, 1989 with a coupon amount of U.S. \$21.60 for the U.S. \$10,000 denomination and U.S. \$5,789.93 for the U.S. \$250,000 denomination and will be payable on 17th October, 1989 against surrender of Coupon No. 17.

Bankers Trust Company, London
Agent Bank

INTERNATIONAL CAPITAL MARKETS

Caribbean hopes high for unified exchange

Canute James on Caricom's plans to set up a regional capital market

Members of the Caribbean Economic Community (Caricom) have agreed to establish a regional capital market...

At their annual summit in Grenada this month, the leaders of the 13-member regional body agreed to a plan for a single regional market...

Mr Seymour Mullings, Jamaica's Finance Minister, said a regional stock exchange would lead to enhanced foreign exchange flows...

Community leaders say an immediate start on the regional market can be made with exchanges cross-listing each other's shares...

There are several obstacles to be cleared before regional trading can start. It is now impossible for investors to buy and sell shares promptly...

Mr Byron Blake, director of economics in the Caricom secretariat, said there were already likely to be concerns over the possibility of currency devaluations...

There would also be a need for changes to conditions governing foreign stockholdings. Mr Mullings said that one problem was the alien landholding regulations in Trinidad and Tobago...

The Trinidad and Tobago Government said recently it was examining possible changes to the legislation which would make it easier for foreigners to purchase and sell property.

Disparity in company laws will also have to be refined and legislation updated to streamline regulations for the disclosure of information, auditing and accounting methods and tax laws.

There will also have to be agreements between the community countries on double taxation treaties.

Less challenging will be the installation of telecommunications facilities to link the countries across the 3,000-mile breadth of the Caribbean.

The first decision which central bankers face is how to use the three existing exchanges. They have to determine whether to use an association of existing and planned stock exchanges or merge them into a single system.

Another grey area is the level of participation of companies and investors from the other Caribbean countries which do not have any plans to establish national stock exchanges. One option which will be discussed is the establishment of a regional capital market, separate from the national exchanges...

US thrift industry owns 8% of junk bond sector

By Norma Cohen

THE US thrift industry owns about 8 per cent of the total US junk bond market, according to a report by Alexander Shearman & Sterling, a Texas-based consulting firm specialising in the thrift industry.

The consulting firm used data compiled by the Federal Home Loan Bank Board to make public the first specific information about the beleaguered industry's holdings in speculative-grade debt securities.

Under legislation now coming before Congress, that holding - totalling \$18bn, or approximately \$10bn market - would have to be sold off within the next two years. An alternative bill under consideration...

With the approach of the European Community's single market, the industry is looking for opportunities for corporate finance business, including mergers and acquisitions, international equity issues and privatisation.

The Italian company also aims to use the Rothschild Group's international reach to help foreign companies wishing to enter the Italian market. Mr Katz said that big foreign multinationals were attracted by a market of 65m people in which the current level of investment was generally low.

He added that the investment fund would take advantage of the many opportunities existing among small- and medium-sized family companies in Italy in need of venture capital and stronger management.

"Italy has been left out of the investment programmes of a great number of international institutions and the heavy weight of money is there for this type of investment," he said.

per cent, Imperial Savings and Loan Association with 11.58 per cent and Centrust Savings Bank with 12.38 per cent.

The US thrift industry is subject of a government bailout which may cost more than \$250bn over the next 30 years.

The industry's holdings in junk bonds have been particularly controversial because of the speculative nature of the investment and because the bonds represent loans to corporations which were not intended to benefit from the interest-free federal assistance given to the industry.

The industry was initially intended to make funds available for residential mortgages.

According to the study, eight Southern California savings and loans hold \$7.5bn in junk bonds - just over half of all the industry's investments in these securities.

Among the largest holders are Columbia Savings and Loan Association with \$2.86 per cent of its assets in junk bonds, Western Empire Savings and Loan with 20.47

per cent, Imperial Savings and Loan Association with 11.58 per cent and Centrust Savings Bank with 12.38 per cent.

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The industry was initially intended to make funds available for residential mortgages.

Rothschild forms Italian management buy-out fund

By John Wyles in Rome

THE Rothschild Group, the banking and investment company, has announced a \$112.5bn (\$81m) fund for financing management buy-outs and other investments in small- and medium-sized Italian companies.

The fund, Old Court Italian Ventures, will be Guernsey-based. It will be aimed over its 10-year life at institutional and private investors ready to accept a high degree of risk.

Its advisers will be Europa Investment Sapa, an Italian investment company created last year by a team of five former members of Citibank's corporate finance team in Milan.

Mr Richard Katz, managing director of Rothschild Italia, said yesterday that the fund and the opening of a full subsidiary in Italy after years of having only a representative office in Rome confirmed the group's "bullishness" about Italy.

Japanese bank may securitise municipal bonds

By John Wyles in Rome

BANK OF Yokohama may this month securitise its portfolio of municipal bonds. If the bank goes ahead it would be the first time municipal bonds, known as deed bonds, were securitised in Japan, Reuter reports.

The Finance Ministry announced this week it would allow securitisation in order to help foreign companies achieve the capital adequacy standards proposed by the Bank for International Settlements (BIS).

Bank of Yokohama plans to sell between Y2bn and Y3bn (\$14m and \$21m) in bonds to regional banks and to life and non-life insurance companies. The bank will seek shareholder approval for the move.

Deed bonds have relatively low liquidity and there is a small secondary market for them. The ministry has allowed outright sales of these municipal bonds to institutional investors.

The BIS committee has ruled that banks operating internationally should have capital amounting to 8 per cent of risk assets by 1992.

FT INTERNATIONAL BOND SERVICE

Listed are the latest international bonds for which there is an adequate secondary market. Closing prices on July 18

Table with columns for Bond Name, Issued, Bid, Offer, and Yield. Includes sections for US STRAIGHTS, FOREIGN STRAIGHTS, CONVERTIBLES, and FLIGHTING RATE.

* No information available previous day's price. * Only one market maker supplied a price. Straight Goods: The yield is the yield on redemption of the mid-price. The amount used is in millions of currency units except for Yen bonds where it is in billions. Change on week - Change over price or average price change. On day - On week - On month.

Collateralised Mortgage Securities (No 1) PLC. Multi-Class Mortgage Backed Floating Rate Notes due 2016. Class A1 £110,000,000, Class A2 £65,000,000, Class A3 £35,000,000. Total £210,000,000. Goldman Sachs International Limited.

DECLARATION OF DIVIDENDS. UNITED KINGDOM CURRENCY EQUIVALENTS. Declaration of dividends for various companies including Gold Fields of South Africa Limited, Deelool Gold Mining Company Limited, etc.

LIBERTY ALL-STAR WORLD PORTFOLIO SICAV. Registered Office: 2, boulevard Royal - L-2953 Luxembourg. Notice is hereby given to the shareholders that the ANNUAL GENERAL MEETING of shareholders of LIBERTY ALL-STAR WORLD PORTFOLIO will be held at the head office of Banque Internationale à Luxembourg...

AMENDED NOTICE Republic of Iceland U.S. \$125,000,000 Floating Rates Notes due 2000. Holders of Floating Rates Notes of the above issue are hereby notified that for the interest period from 17th July 1989 to 17th January 1990 the following information will apply.

BANCO HISPANO AMERICANO S.A., MADRID. MOODY'S ASSIGNS PRIME-1 RATING. Moody's Investors Service has assigned a Prime-1 rating to Banco Hispano Americano for its short term deposits. In a statement, Moody's said the rating reflects the bank's adequate liquidity, sound asset quality and provisioning, and the quality of earnings from its domestic retail banking activities.

Notice of Interest Determination Morgan Stanley Group Inc. Floating Rate Notes Due 1993. Interest on the above securities for the Interest Period of July 13, 1989 through January 15, 1990 is scheduled to be paid on January 16, 1990 at the Interest Rate of 8.9375% per annum. The Interest Amount will be \$464.25 per \$10,000 of principal.

INTERNATIONAL CAPITAL MARKETS

Wider trade deficit drags Treasuries lower

By Janet Bush in New York and Katharine Campbell in London

NEWS OF a wider than expected US trade deficit in May dragged US Treasury bond prices down yesterday but losses were limited by a relatively resilient performance by the dollar and a more pressing interest in...

GOVERNMENT BONDS

today's June consumer prices release. At midsession the benchmark long bond was quoted around 8.15 per cent. Earlier it had traded more than 8.10 per cent lower.

The bond market is more concerned with today's consumer prices release and tomorrow's Humphrey Hawkins testimony to Congress on monetary policy by Mr Alan Greenspan, chairman of the US Federal Reserve. Interest rates remain the key to sentiment in the bond market, which has already fallen to yield levels which discount a further easing move by the Fed. Fed funds again traded solidly at 9 1/4 per cent yesterday.

BENCHMARK GOVERNMENT BONDS

Table with columns: Country, Coupon, Red Date, Price, Change, Yield, Week 89, Month 89. Rows include UK GILT, US Treasury, Japan, Germany, France, Canada, Netherlands, Australia.

THE Australian bond market seems inured to bad news on the current account front, so yesterday's \$1.63bn deficit in June - towards the upper end of economists' forecasts - did not provoke a significant reaction.

before the Australian dollar sheds 20 per cent of its value in the next month or two (their worst-case assumption), was shrugged off by local bond dealers. Their attention is firmly fixed on next Wednesday's consumer price index.

THE UK gilt-edged securities market was largely forgotten as attention focused on the US market and the dollar. Turnover was lacklustre, as weekly transport difficulties again overtook the market. Even the modest signs of foreign buying appetite in recent days dried up.

Another Lebanese bank falls foul of French authorities

By George Graham in Paris

THE Bank of France has named a judicial administrator for Lebanese Arab Bank, the third Lebanese-controlled bank to run into trouble in France within four months. Lebanese Arab Bank has been in difficulties for some weeks and the Lebanese central bank is believed to have tried to encourage other Lebanese-owned banks in Paris to come to its rescue.

lowed the collapse of the Tamraz group in Lebanon, which had controlled it and which was its main debtor. The French authorities have repeated their belief that there is no generalised problem with Lebanese or Arab-controlled banks, although other institutions have been increasingly nervous since the collapse of Al Saudi Banque last year with losses of more than FF2.2bn.

Nikko sets up Tokyo index fund for US

By Janet Bush

NIKKO SECURITIES International, the US arm of the Japanese securities house, yesterday announced the launch of the first mutual fund for US investors, registered with the Securities and Exchange Commission and indexed to the Japanese stock market.

BNP CS100m deal heads weak list of new issues

By Andrew Freeman

TRAIN STRIKES and trade figures dominated thin activity on the Eurobond markets yesterday. In London many traders left early to try to beat the extended rush hour, while European interest was mild after the US trade data and ahead of today's US consumer price index figures.

Moody's fixes rating for Hungarian state bonds

By Norma Cohen

THE National Bank of Hungary has been assigned its first-ever credit rating, a low investment-grade rating of Baa2 on its foreign currency bonds by Moody's Investors Service.

Indian bank to borrow Rs1.3bn

By R.C. Murthy in Bombay

COMMERCIAL foreign borrowings planned for this year by the Industrial Development Bank of India will total more than Rs1.3bn (\$79.7m), the state-owned bank has announced.

NEW INTERNATIONAL BOND ISSUES

Table with columns: Issuer, Amount m, Coupon %, Price, Maturity, Fees, Book runner. Rows include Canadian Dollars, New Zealand Dollars, US Dollars, Swiss Francs.

CSFB had conducted extensive pre-placement on the issue, which followed a roadshow by the company two weeks ago. The bonds were offered by CSFB at their par issue price yesterday, while away from the lead manager the paper was quoted at 99 bid.

LONDON MARKET STATISTICS

Table with columns: Rises, Falls, Same. Rows include British Funds, Financial and Properties, Oils, Others.

LONDON RECENT ISSUES

Table with columns: Issue, Amount, Maturity, Price, Yield. Rows include various corporate and government bonds.

FIXED INTEREST STOCKS

Table with columns: Issue, Amount, Maturity, Price, Yield. Rows include various fixed interest securities.

TRADITIONAL OPTIONS

Table with columns: Issue, Amount, Maturity, Price, Yield. Rows include various traditional options.

LONDON TRADED OPTIONS

Large table with columns: Issue, Amount, Maturity, Price, Yield. Rows include various traded options.

FT-ACTUARIES SHARE INDICES

These indices are the joint compilation of the Financial Times, the Institute of Actuaries and the Faculty of Actuaries

Table with columns: Index No., Day's Change, Est. Earnings, Gross Div. Yield, Est. P/E Ratio, etc. Rows include various equity groups and sub-sections.

FIXED INTEREST

Table with columns: Index No., Day's Change, Est. Earnings, Gross Div. Yield, Est. P/E Ratio, etc. Rows include various fixed interest securities.

Share Index 2273.9, 10 am 2277.8, 11 am 2283.7, Noon 2277.5, 1 pm 2271.6, 2 pm 2271.6, 3 pm 2273.0, 4 pm 2274.5, 5 pm 2273.9. 10.48am (D) 1.36pm 1 Flat yield. High and low (near) and closing (near) prices in brackets on Saturday issues. A list of constituents is available from the Publishers, The Financial Times, Number One, Southwark Bridge, London SE1 9HL, priced in £, by post 34p. Indices based on 4.00pm prices.

صكواتن الاصل

UK COMPANY NEWS

The BAT bid highlights the fragility of bank loyalty

Banque Paribas may back the Hoylake consortium

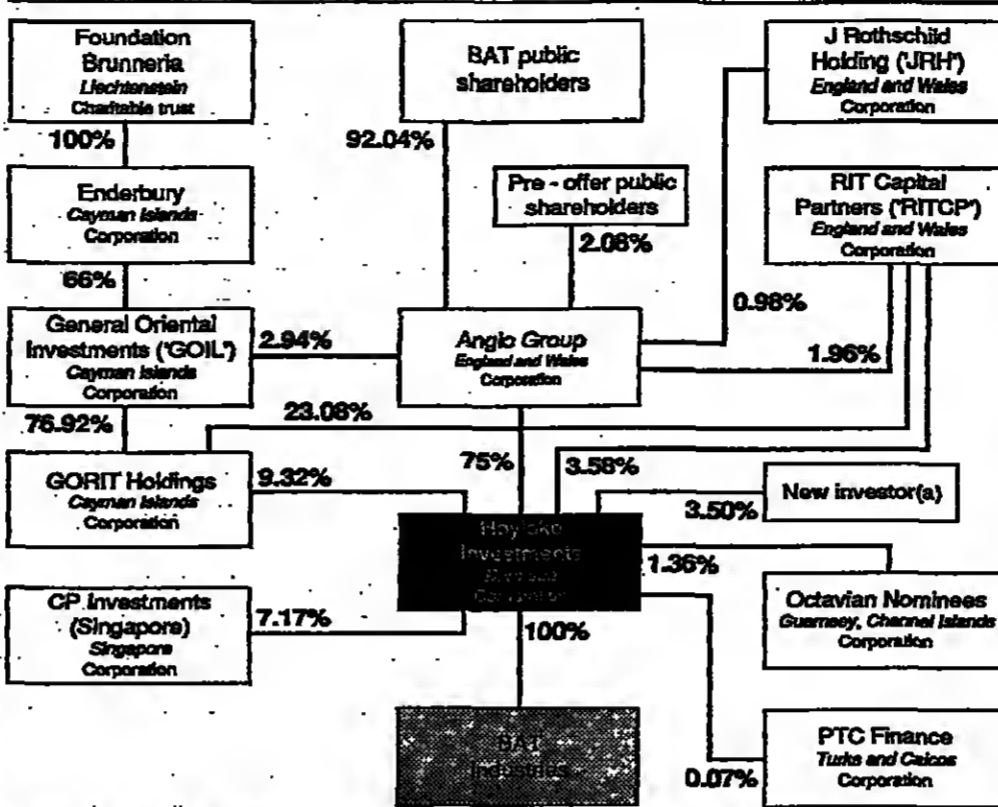
By David Lascelles, Banking Editor

THE POSSIBILITY that Banque Paribas will join the bankers of the Hoylake consortium...

However, Mr Desmond said that far from having to call on banks' loyalty, he had received many calls from bankers who were keen to help.

However, even the clearers have become much more aggressive recently, according to their embarrasment. Barclays earned a rebuke from GBC when it offered to help finance the Plessey consortium takeover attempt in January.

Hoylake's blueprint for BAT



Copies of this chart appear in the documents filed with US insurance regulators by Hoylake, the investment vehicle for Sir James Goldsmith's bid for BAT.

At bottom left, CP Investments (Singapore) is a subsidiary of Mr Kerry Packer's Consolidated Press Holdings.

First blood to Anglo United in battle for institutional favour

By Ray Bashford

ANGLO UNITED has won the first round in the fight to secure the support of the institutional shareholders in Coalite who are making their final assessments of Anglo's £478m takeover offer.

Mr Eric Varley, Coalite chairman, said that the Pru sale was a sign that it did not believe that Anglo United would succeed.

Argyll chief 'assured' by DTI over role in Distillers takeover

By David Waller

MR ALASTAIR Grant, chairman of Argyll Group, visited the Department of Trade and Industry yesterday to discuss recent press speculation about Argyll's involvement in the DTI's investigation into Guinness over its takeover of Distillers in 1988.

In respect of the report had not changed since April when the Government indicated - via a parliamentary answer - that the inspectors had completed their enquiries.

not be considered until after the outcome of criminal proceedings against seven men in connection with the takeover.

Securiguard up 67% to £2.45m

Pre-tax profits of £2.45m for 28 weeks to May 21 were announced by Securiguard, the security systems and industrial cleaning group.

The outcome represented a 67 per cent increase on the previous year's £1.47m.

Hampson shares rise as profits climb to £6.2m

By Edward Susman

HAMPSON INDUSTRIES, the acquisitive West-Midlands based holding company with interests in precision engineering, industrial cleaning, bulk handling and printing equipment, booked pre-tax profits of £6.2m in the year to March 31, from turnover ahead 33 per cent.

by technical matters. The company brought out a £4.94m rights issue at the time instead. "The present rate of dividend will at least be maintained," he said.

Compensation possible for Abbey shareholders

By Clare Pearson

SHAREHOLDERS in Abbey National who can demonstrate they have lost money as a result of a computer bungle by the registrars will be able to claim compensation for borrowing costs incurred after flotation day, July 12.

loans taken out specifically to cover payment for shares which were incurred after the first day of dealing - originally the target date for receipt of certificates by shareholders.

Advertisement for Church Mortgage Finance PLC, featuring £175,000,000 Mortgage Backed Floating Rate Notes due 2019, Issue Price: 100 per cent., and a list of participating financial institutions.

Ansbacher gets £9.6m for insurance interests

By Patrick Cockburn

HENRY ANSBACHER Holdings, the financial services group, has sold its Ansbacher Insurance Holdings subsidiary to Leslie & Godwin, the Lloyd's broker, for £9.6m.

underwriting agency based in New Orleans. The sale does not include the 75 per cent interest in Adams & Porter, a US retail insurance broking group based in New York and California. This is to be sold at a later date.

DIVIDENDS ANNOUNCED

Table listing dividends for various companies including Brasserie, Clyviaison, Clarke Hooper, and Securiguard, with columns for current payment, date of payment, and total for year.

Advertisement for Danbury Group Plc, featuring Royal Trust Bank, 3,150,000 Ordinary Shares of 10p each at 135p per share payable in full on acceptance, and details of the company's operations and financials.

This announcement appears as a matter of record only.

Realcredit

Mortgage Association

Registered in the Kingdom of Norway

NOK 200.000.000,- 10 1/4 % Bonds 1989/1992 Private placement

Arranged by
OSLO FINANS A/S

- | | |
|---|------------------------------------|
| Bayerische Hypoteken- und Wechsel - Bank AG | Bikuben Broker A/S |
| Commerzbank A.G | PK-Banken International, Luxemburg |
| Scandinavian Bank Group plc | Trinkaus & Burkhardt KGaA |
| David Livsforsikring | Fokus Bank |
| Internordisk Bank A/S | A/S Investa |
| Samvirke Forsikring | Sparebanken Møre |
| Sparebanken Nordland | Sparebanken Sør |
| Toten Sparebank | |

This notice is issued in compliance with the requirements of the Council of The International Stock Exchange of the United Kingdom and the Republic of Ireland Limited ("The Stock Exchange"). It does not constitute an offer or invitation to any person to subscribe for or purchase any shares. Application has been made to the Council of The Stock Exchange for the grant of permission to deal in the ordinary shares of Polar Electronics Plc, issued and now being issued, in the Unlisted Securities Market. It is emphasized that no application has been made for these shares to be admitted to listing. It is expected that dealings will commence on Tuesday, 25 July 1989.



Polar Electronics Plc

(Incorporated in England under the Companies Acts 1948 to 1976 No. 1361564)

Placing by
Samuel Montagu & Co. Limited
of 1,900,000 ordinary shares of 10p each at 105p per share

SHARE CAPITAL		
Authorised		Issued and to be issued fully paid
£1,070,000	In ordinary shares of 10p each	£790,000

Polar Electronics Plc is engaged in the distribution of a broad range of electronic components to a wide customer base. Samuel Montagu & Co. Limited has arranged for the ordinary shares made available in the Placing to be placed by Laurence Prust & Co. Ltd and by Smith Keen Cutler with their clients.

Full particulars of the Company are available through the Exel Unlisted Securities Market Service and copies may be obtained during normal business hours on any weekday (Saturdays and bank holidays excepted) up to and including 2 August 1989 from:

- | | | |
|--|--|---|
| Samuel Montagu & Co. Limited
10 Lower Thames Street
London EC3R 6AE | Laurence Prust & Co. Ltd
27 Finsbury Square
London EC2A 1LP | Smith Keen Cutler
Exchange Buildings
Stephenson Place
Birmingham B2 4NN |
|--|--|---|

and during normal business hours on 20 and 21 July 1989 from the Company Announcements Office, The Stock Exchange, 46-50 Finsbury Square, London EC2A 1DD. 19 July 1989

NOTICE OF REDEMPTION

To the Holders of the
12 3/4 % Guaranteed Notes Due 1991

General Electric Credit International N.V.

(guaranteed by General Electric Capital Corporation, formerly known as General Electric Credit Corporation)

The Issuing Corporation is a member of General Electric Company, U.S.A.

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of Section 6 of the Fiscal and Payment Agency Agreement, dated as of August 7, 1988, among General Electric Credit International N.V. (the "Company"), General Electric Capital Corporation (the "Guarantor"), General Electric Credit Corporation (the "Guarantor"), and the Guarantor, the Company has determined to redeem the 12 3/4 % Guaranteed Notes (the "Notes") due 1991, in whole, on August 7, 1989 (the "Redemption Date") at the price of 100% of their principal amount (the "Redemption Price") plus interest accrued to the date of redemption. Interest on the Notes shall be paid on the Redemption Date, together with the Redemption Price, to the holders of the Notes. Payment of the Redemption Price will be made upon presentation and surrender of the Notes, together with the appropriate coupons, to the Guarantor, at the office of the Guarantor, in New York, New York, or to the Guarantor, at the office of the Guarantor, in London, England, or to the Guarantor, at the office of the Guarantor, in Zurich, Switzerland. The Guarantor is not responsible for the payment of the Redemption Price to the holders of the Notes.

Agents Bank: Baring Brothers & Co., Limited

NORTH ROCK BUILDING SOCIETY

£100,000,000
Floating Rate Notes
Due 1995

Interest Rate: 14.0625% per annum

Interest Period: 18 July 1989 to 18 October 1989

Interest Amount per £5,000 Note due 18.10.89: £177.23

Interest Amount per £50,000 Note due 18.10.89: £1,772.26

Agent Bank: Baring Brothers & Co., Limited

UK COMPANY NEWS

Microgen warning hits share price

By John Thornhill

SHARES IN Microgen Holdings, the computer bureau services company, slipped 17p to 222p when the company unveiled a 5 per cent fall in half-year profits and said the outcome for the year would be only marginally above the previous year's level.

Pre-tax profits fell from £5.15m to £4.89m in the half-year to April 30 although turnover rose strongly by 19 per cent to £22.98m (£19.28m).

Mr Patrick Barbour, chairman, ascribed the disappointing result to a severe price war which affected its Eurocom Depora subsidiary in West Germany and one-off reorganisation costs. These factors had depressed profits by nearly £200,000, he said.

Microgen is currently developing a range of information management services which

will increasingly be marketed as a package. The company will then be able to offer a range of information retrieval, computer processing, phototyping and printing services from one source.

This strategy has involved the merger of its computer output and microfilm activities with its laser printing operations. Microgen plans to benefit from their combined sales forces and customer lists but in the short term has incurred costs in rejigging its operations.

Capella, its Scandinavian subsidiary which accounts for nearly a quarter of sales, performed strongly during the period but bore the costs of establishing a distributorship in Norway.

Microgen has bolstered its senior management through

the appointment of Mr John Thorpe, formerly head of De La Rue's security printing operation, as managing director.

The directors have increased the interim dividend to 2.2p (2p) despite a fall in earnings per share to 8.2p (8.6p).

Mr Barbour said: "There will be minimal growth for the year as a whole but I hope we will see strong profit growth throughout 1990."

COMMENT

Microgen's annual report, which is always enlivened by the appearance of an aphorism on its front cover, last year quoted the Chinese proverb: "The progresses fastest who takes the largest number of short steps." So far - in profit terms at least - these steps have not amounted to much,

but it could well be that in the longer run this oriental wisdom proves valid. The company's strategy of providing information management services superficially looks an attractive one although it has yet to be fully tested in the rigours of the UK marketplace.

But Capella has shown what can be done in the less-competitive Scandinavian arena and if its successes can be translated in the UK then Microgen will resume its previously good profits growth. It will take something of an act of faith for investors to clamber aboard at this stage and a degree of patience to stay with it, but as soon as any signs of its strategy being vindicated become apparent then the rewards will flow. Until then, a prospective p/e of 13 on pre-tax profits of just over £10m looks heavy.

Changes in pension provision reflected in new business figures at Legal & General

By Eric Short, Pensions Correspondent

LEGAL & GENERAL Group, one of Britain's largest life assurance and financial services groups, has reported new annual premiums on individual pension business up by 43 per cent, from £34.4m to £49.1m, and single premiums up by nearly two-thirds, from £43.8m to £71.6m.

These figures, for the first six months of the year, illustrate the benefit to life companies of the radical changes made last year in UK pension provision, in particular the introduction of the new style personal pensions.

To date, over 200,000 personal pensions have been sold by the group since these contracts were introduced, giving L&G around 5 per cent of the market.

Individual pension sales in the first six months of last year were themselves buoyant, particularly to the self-employed ahead of the introduction of the new style personal pensions. So the sales increase was achieved from an already strong base.

However, these figures do not tell the complete story.

The substantial growth in single premium individual pension business reflects the buoyant market in rebate-only personal pensions used by employees to contract out of the State Earnings-Related Pension Scheme.

But L&G only credits the contributions actually received from the Department of Social Security in respect of these

rebate-only personal pensions. The group estimates that it should receive a further £125m in contributions from the DSS for business completed in the tax year 1988/89.

The group's traditional group pensions business showed continued natural growth in the UK, with a 16 per cent rise in annual premiums from £21.5m to £25m, though single premiums declined substantially.

Life companies are expected to record substantial drops in their mortgage related business as a result of the depressed housing market.

However, L&G reports only a 6 per cent fall in new annual premiums on sales of conventional mortgage-related contracts from £40.7m to £38.2m,

and a 65 per cent rise in premiums on unit-linked contracts from £2m to £3.2m.

This reflects the benefits of L&G widening its distribution outlets and expanding its tied agency network which includes 18 building societies.

Uninsured savings business remained generally dull over the period. New annual premiums rose by £1m to £3.8m, but linked-life single premiums halved from £30.8m to £15.2m and unit trust sales dropped by a third from £20.1m to £13.6m.

New money received by the group's fund management operations expanded from £74.7m to £82.6m, of which £55.2m was invested in the index tracking funds,

Philip Harris dives to £911,000

By Graham Deller

PHILIP HARRIS Holdings experienced a "lamentable" shortfall in budgeted expectations in the year to end-March, according to Mr John Haller, chairman of this scientific and educational equipment supplier.

Although turnover grew from £55.27m to £56.53m, pre-tax profits dived 40 per cent to £911,000 (£1.51m).

Referring to his remarks at the interim stage, Mr Haller said the fall was "due entirely to substantial losses in two operations" - the relocated Scientific company and routine international trading.

The educational and scientific

companies, including international operations, produced turnover of £29.9m (£24.1m) but saw operating profits dip to £744,000 (£956,000).

Mr Haller said rationalisation of the scientific side under the management of Northern Media, acquired by Harris early in 1988, should result in improved profitability at the division and "original high intentions" should be achieved.

Harris also yesterday unveiled proposals to purchase, subject to shareholders' approval, Northern Media's deferred preference capital for £785,000 in loan notes.

A contrasting performance was provided, however, by the Philip Harris Medical subsidiary which lifted turnover 14 per cent to £35.6m and operating profit by just over 10 per cent to £583,000. The improvement came in spite of what Mr Haller described as "intermediate turmoil" within the pharmaceutical distribution industry following the Unichem share sale at 185p, which will raise about £1.65m for the company. Joint brokers to the placing are Laurence Prust and Smith Keen Cutler. Dealings are expected to start on July 25.

Polar Electronics integrated circuits, relays, switches, connectors and capacitors to a wide range of customers, mainly original equipment manufacturers.

It holds 19 franchises from component manufacturers, including SGS-Thomson, Matra Harris, General Instrument and TDK. It is the largest UK distributor in respect of eight of its franchisees. Franchise business currently accounts for two thirds of Polar's turnover, although it is now negotiating further franchises.

It also intends to consolidate its position as a franchised and non-franchised distributor of products in which it is not strongly represented, such as connectors and the military market.

Profits before tax and directors' additional remuneration in the year to September 30 1988 were £994,000. For the current year they are forecast to be a minimum of £1.2m. That puts it on a prospective p/e multiple of 8.75 on the basis of a forecast tax charge of 36.6 per cent.

ISSUE NEWS

USM debut for Polar Electronics

By Vanessa Houlder

Polar Electronics, an electronic component distributor, is joining the USM in a placing that values it at £8.3m.

Samuel Montagu yesterday announced a placing of 1,900,000 shares at 105p, which will raise about £1.65m for the company. Joint brokers to the placing are Laurence Prust and Smith Keen Cutler. Dealings are expected to start on July 25.

Polar distributes integrated circuits, relays, switches, connectors and capacitors to a wide range of customers, mainly original equipment manufacturers.

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Clarke Hooper 45% up at £2.3m

By Vanessa Houlder

CLARKE HOOPER, the USM-quoted sales promotion and marketing group, yesterday announced a 45 per cent rise in pre-tax profits from £1.88m to £2.68m for the year to April 30.

Mr Barry Clarke, chairman, said that the group had achieved impressive growth in its core UK sales promotion consulting business while successfully expanding the group's geographical coverage and range of services in the UK and North America.

Clarke Hooper America, as a whole, remained profitable. However, Joseph Potocki & Associates, a marketing services company, incurred an operating loss due to increased overheads as a result of expansion. The company said it had restructured its management and operations, which should ensure improved results this year.

Turnover increased 89 per cent from £21m to £39.76m. Earnings per share advanced 28 per cent to 14.7p (11.5p). A final dividend of 2.45p brings the year's total to 3.5p (3p).

£10.65m to £14.03m, reflecting an improvement from 10.3 to 12.7 per cent in pre-tax margins.

After tax of £625,000 (£54,000), earnings per 20p share emerged at 3.7p (2.6p). The interim dividend is raised from 1.25p to 1.5p.

trust's year-end in December compared with a gain of 7.45 per cent in the FT-A Property index.

Earnings per 5p share rose to 0.686p (0.268p).

Bourne End buys £16m portfolio

Bourne End Properties has acquired a major portfolio of trading properties for £16.25m, funded principally by a short term mortgage. The vendor was Equity and Law.

The portfolio comprises 19 offices, retail and industrial properties (17 freehold) located throughout the UK and producing annual gross income of £931,750.

Triplex Lloyd £2.7m purchase

Triplex Lloyd has purchased the centrifuging business of Firth Vickers Foundry, a subsidiary of Firth Rixon, for £2.7m.

The company, to be known as Firth Vickers Centrifuging, complements the high alloy spun products of Loyds (Burton) and forms part of the strategy of strengthening the power and defence division of Triplex Lloyd.

Mr David Aston, the defence division's managing director, said the company served customers worldwide in aerospace and power generation.

Cookson expands at home and abroad

Cookson Group has acquired Flegro, a Madrid-based producer of ceramic supplies and base metal refining and processing for building materials, for an undisclosed cash sum.

The Spanish company's turnover in the year to December 31 was Pta 2.5bn (£12.9m) and net assets were valued at Pta 415m. It employs 180 people.

Cookson also announced the acquisition of Perno Manufacturing, an Essex-based manufacturer of anti-conditioning and industrial heating and cooling systems. The company will be integrated into the Cookson Fry operation.

Everards boosted by property sales

Everards Brewery, the independent traditional ale company, yesterday announced substantially higher interim profits.

For the six months to March 25 1989, the Leicester-based brewer lifted pre-tax profits from £284,000 to £243m. The increase, however, was almost entirely attributable to property disposal profits of £2.14m, which largely accrued from the sale of a 4.5 acre site close to its Castle Acres brewery.

At the trading level, profits showed a much more modest increase, from £285,000 to £290,000. Turnover was £11.17m (£10.09m).

CORRECTION

Dean & Dyball

An article in the FT on July 11 incorrectly stated that Dean & Dyball, the private construction company, may be resubstantial for purchasing properties sold to Marina Development, the property group. That responsibility is being personally assumed by Dean & Dyball Property directors Mr John Dean, Mr Mark Sedgley and Mr Richard Reddyhoff.

Sales improve 32% at Leslie Wise

Leslie Wise Group, a textile design finishing converting and manufacturing company, reported pre-tax profits up from £1.15m to £1.79m in the six months to May 31. Sales rose 32 per cent from

Trust of Property assets edge ahead

Net asset value of the Trust of Property Shares was 120.44p at June 30 1989, a slight increase on the 118.6p standing a year earlier.

However, the directors said that the increase of just over 9 per cent in net asset value

Colefax & Fowler at £2.7m after 83% rise

By Alice Rawsthorn

COLEFAX & Fowler, one of the Sloane Rangers' favourite sources of home furnishings, announced an 83 per cent advance to £2.7m in pre-tax profits on sales up 68 per cent in the year to April 30 1989.

Mr David Green, chief executive, said most of the increase was attributable to Cowtan & Tout, the US wallpaper company that Colefax acquired last autumn. Although, he said, the rest of the business had fared well.

Cowtan contributed about £800,000 to profits and nearly £5m to sales in its first six months with Colefax. The rationale for the acquisition was to gain a distribution network in a compatible brand to Colefax.

The Colefax collection is now sold in each of the 17 Cowtan showrooms. Cowtan already distributes half of the collection and will handle the rest with its agreement with its distributor comes to an end in 1991.

Colefax established a base in Australia during the year. Mr Green said that contributed about £600,000 to sales in its first ten months.

In the longer term Colefax intends to take control of its distribution in Europe. By 1992 it plans to have established its own distributors in major markets - like France, West Germany, Spain and Italy - and to have appointed agents in other countries.

This will involve ending its present distribution agreements. Mr Green said the level of sales generated from Europe less than £800,000 - was too low for this to disrupt the business.

The UK business, which accounts for more than half turnover, mustered sales growth of 40 per cent during the year. Mr Green said that demand had been unaffected by the recent rise in interest rates and that the pattern of trading was still healthy.

Turnover came to £19.04m (£11.46m). Earnings per share rose to 11.8p (9.4p) and the final dividend is 2.2p for a total of 3.3p (Up). The shares rose 3p to 186p yesterday.

Eurotherm rises 15% midway

By Edward Süssman

Eurotherm International, the industrial process control and electronic equipment manufacturer, yesterday announced a 15 per cent increase in pre-tax profits from £5.8m to £6.7m for the six months to April 30.

Mr Jack Leonard, chairman, said the core business continued to grow strongly, with order books currently up 24 per cent from a year earlier. But the development of new products had been slower than hoped. The company is delaying launches that might have increased profits.

He declined to break down profits by individual divisions. But he said there was progress in variable speed drive companies and process control systems companies. UK and US temperature control divisions have shown some recovery.

"Consolidated investment" has been made in a new US facility for the automatic assembly of conventional and surface mount circuit boards. New ventures in South Korea, Spain and Norway are also underway, although not yet contributing to profits.

"There is as yet little sign that the industry environment will not continue to support strong growth and, despite short term difficulties created by new product delays, I remain fully confident of our future," Mr Leonard said.

Turnover rose 11 per cent to £27.5m (£24.1m). Earnings per share were 10.6p (8.39p) and an interim dividend of 1.75p (1.47p) is declared.

Placing puts £13.7m tag on Danbury

Danbury, an Essex-based property development group, yesterday announced its flotation on the USM.

The placing, which will capitalise the company at £13.7m, is being sponsored by Royal Trust Bank. Royal Trust is also injecting a further £1m of additional equity by exercising an option.

Societe Generale Strauss Turbulla is placing 3.15m shares at 135p. The placing will raise about £2.91m, which will provide additional working capital for the group. Dealings will start on July 25.

Danbury started trading in January 1986. It specialises in the redevelopment and enhancement of existing property sites, mainly in urban locations. In the year to end-March it made pre-tax profits of £1.69m (£190,000) on turnover of £4.44m (£500,000).

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NOTICE
BANK OF MEXICO Ltd.
(UNION BANK OF
FENLAND LTD.)
Helsinki, Finland

ECU 25,000,000 9%
Subordinated Bonds
Due 1996

Notice is hereby given to the holders of the above Bonds that, at the annual Meeting of the holders of the above mentioned Bonds to be held at the offices of the Bank of Mexico Ltd., at the address of the Bank of Mexico Ltd., on the 12th of July 1989, the following resolutions were passed. The resolutions are hereby presented to the holders of the Bonds for their approval.

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FT 30 FTSE 100 WALL STREET
Jul. 18/1989 -6 Jul. 22/85/2275 -5 Jul. 22/85/2275 -5
Sep. 18/88/1897 -6 Sep. 22/85/2295 -5 Sep. 25/80/2572 -7

Prices taken at 5pm and change is from previous close at 9pm

UK COMPANY NEWS

The volatility of high technology business

Paul Abrahams on the problems facing companies at the forefront of their field

THE SALE of Crosfield Electronics by De La Rue to Du Pont and Fuji reflects both the potential and danger of fast growing high-technology industries.

The potential for Crosfield is considerable. It is one of the leading companies in pre-press technology and in particular electronic colour page composition systems. These allow high-resolution text and images to be electronically altered before they are printed.

The market for such systems is expanding rapidly according to Mr Clifford Schwiebert, business director for Dupont's electronic imaging division. In the pre-press arena, the success of Waco and Parkway, the rapidly growing UK pre-press groups, has been based upon this technology.

Moreover, in the medium term, such technology could also be used for applications outside the graphics and printing industries which have been Crosfield's main markets. These include medical and satellite imaging, and defence, says Mr Schwiebert.

De La Rue's pre-press division should match the ambitions of both Dupont and Fuji. These companies have recognised that the film they manufactured will eventually be replaced by digital systems similar to Crosfield's.

Last May, after the acquisition of Howson-Algrahy, the manufacturer of lithographic printing plates owned by Vickers, Mr Edward Hinchard, Du Pont's vice chairman said that imaging systems was one of the businesses the company had targeted for growth. Until the acquisition of Crosfield, the company's expertise was limited to black and white systems and the results of a relatively new joint research venture in colour imaging with Fuji.

Although the potential for growth of Crosfield was apparent to De La Rue, so too were the risks. Profits in the division fell from £2.5m in 1987 to £5.2m last year. This included a loss of £1.1m in the second half of the financial year, which contributed to a 57 per cent fall in the group's profits.

"The problem is that there is always an inherent degree of volatility in a hi-tech company," explains Mr Jim Salmon, Crosfield's managing director and deputy chief executive at De La Rue. "The trouble is trying to project smooth growth in the second half of last year we walked off the edge of a cliff."

The difficulties faced by Crosfield were typical of those faced by most technology-driven companies. Both Crosfield and Schen, its main competitor in the electronic page composition sector, have experienced down-turns in business when trying to introduce new systems.

Last year, Crosfield was forced to announce the introduction of a new generation of electronic page composition systems based on a 32-bit platform after Schen had launched a similar system more than 18 months ago.

However, the division subsequently had difficulties with the design of the application-specific integrated circuits (ASICs) necessary for the new machines, as well as problems in the systems' software. The result was that instead of shipping the product in January, the first generation equipment was not ready until the end of May. The second generation

Crosfield revenues 1988/9

By business segment	1988/9	1987/8
Total revenues £244.75m		
Colourgraphics	53%	57%
Design systems	4%	1%
News publishing	8%	9%
Communications	6%	7%
Press controls	6%	5%
Customer service	23%	21%

machines, which should be free of software problems, will only be ready by October.

The result of this delay was that the division was in no position to handle a dramatic decline in the sales of electronic page composition systems. Although the company had been emphasising last year that it had diversified the group so that it could absorb such down-turns, the colour graphic sector, made up of electronic page composition systems and scanners, still generated 53 per cent of the division's turnover in 1988.

In addition, the division was faced with falling margins in the scanner market where the Japanese-based company, Dainippon, was actively price-cutting. Simultaneously, the news-publishing sector, which represented about 8 per cent of the division's turnover, was adversely affected by the US election and a down-turn in advertising revenue.

The sale of Crosfield was, in the long-term, not unlikely explains Mr Salmon. Although the new generation of equipment now being launched should improve margins because it is cheaper to manufacture, he believes that the company would eventually have come under pressure from other, larger, concerns.

He points out that companies such as Kodak and Agfa, as well as Dupont and Fuji, were already moving into the market. It would, he says, have been very difficult for De La Rue to have taken on these giants because it would never have been able to afford the marketing effort necessary to break out of the graphics field.

This echoes reasons given by other British companies in explaining the sale of world-leading divisions. When Vickers, the UK engineering group, sold its Howson Algrahy printing plate business to Du Pont in May, the company said that the prospects for the business were limited unless it was combined with a large manufacturer of complementary products.

Expansion minded Brasway hits £3.6m

By Richard Tomkins, Midlands Correspondent

A LACK of acquisitions during the year to April 29 failed to deter Brasway, the West Midlands-based tube, bar and hydraulic components group, from increasing pre-tax profits by 51 per cent to £3.61m.

Mr Reg Swaby, chairman, said the figures "spoke volumes" for the management's ability to drive the company forward organically, but predicted that more acquisitions would come this year.

Best performer in the group's portfolio was Euro-pump Hydraulics, the manufacturer of hydraulic couplings and hose assemblies bought from Unilever in January 1987, which benefited from improved efficiency and strong demand.

The tube manufacturing and stockholding operations fell short of budgeted profits, but still turned in a strong performance on the back of buoyant demand, particularly from the automotive industry.

The bright bar division also improved profits in the face of severely competitive conditions, while the oil blending side increased pre-tax profits from £222,000 to £221,000.

Group turnover rose from £34.8m to £43.6m. Earnings per share advanced from 4.46p to 6.4p and a final dividend of 1.07625p makes a total of 1.52625p (1.0175p). A one-for-one scrip issue is also proposed.

Mr Swaby was optimistic about the outlook in spite of the high interest rates. The group would increase market share not by reducing margins, he said, but by improving its products and service.

Cityvision views advance to £4.62m

By John Thornhill

A CHANGE in accounting policies and a sizeable expansion programme helped Cityvision, the USM-quoted video hire company, nearly treble pre-tax profits from £1.54m to £4.62m in the six months to end-May.

Since the comparable half, the depreciation period on tapes was increased from 15 to 30 months and this has had the effect of considerably boosting stated profits. On a like-for-like basis profits advanced by 58 per cent.

During the period, the number of VHS Video film hire stores was lifted from 185 to 334. Then company also bought Tredegar Home Entertainment and Entertainment Production Services which run 30 outlets in cash-and-carry warehouses.

Mr Bev Ripley, deputy chairman, said the company was currently opening five to six retail shops a week and was gearing itself up to open seven to eight.

It currently has 370 retail outlets but is aiming to increase this to 1,000 within about two years.

Mr Ripley also said the flow of films being released by Hollywood during the next month would be excellent. "There are some 60 big-budgeters coming through, including A Fish Called Wanda, Die Hard and Ram Man," he said.

Turnover rose sharply to £16.99m (£8.46m). An interim dividend of 0.5p (nil) was declared. Earnings per share grew from 2.52p to 5.69p.

The directors are proposing a one-for-one scrip issue to improve the marketability of the shares.

COMMENT
Cityvision has been expanding at a rapid rate but the good news for the company is that enormous market share is still there to be grabbed. The total video film hire market is estimated to be over £500m and is still a fragmented market of small retailers. Cityvision has done much to awaken people to the attractions of the market and there are strong rumours that some of the major high-street retailers such as Kingfisher and WH Smith are ready to move in, but even so Cityvision has already established itself as the biggest player and will not be easy to shift. Another possible threat in the longer term might be the possible take-off of movie channels on satellite television but that danger still looks rather pie-in-the-sky for the foreseeable future. Pre-tax profits for the year could rise to £10.8m putting Cityvision on a prospective multiple of just under 14. That does not seem too fancy considering the growth potential.

Rush & Tompkins accelerates 36% to £8.32m

By Andrew Taylor, Construction Correspondent

PRE-TAX profits of Rush & Tompkins, the UK developer and contractor, rose 36 per cent from £6.12m to £8.32m during the 12 months to end-March.

Hochtief, the West German construction company, holds a 23 per cent stake in the company. Singapore Land, one of Singapore's largest property groups, has a 14.9 per cent interest.

Mr Neil Dummett, managing director, said the relationship with Hochtief would provide the group with opportunities to expand on the Continent, should the British development

market start to recede next year.

The company also had long term plans to expand in the Far East and was pleased with shareholdings held by Hochtief and Singapore Land, he said.

Since being restructured in 1986, Rush & Tompkins has established a niche in the UK market as a contractor developer. It invests no more than 50 per cent in a single development for which it also does the contracting.

Last year about £4m of pre-tax profit was generated from property joint ventures in the UK, and to a lesser extent in the US. The group said it had formed more than 40 property joint venture partnerships in the UK since 1986, covering 50 schemes with a combined development value of £750m.

The average stake in each scheme held by Rush & Tompkins was 40 per cent. Group borrowings last year were reduced by almost 25 per cent to £20m compared with shareholders' funds of £38m.

Turnover rose from £216.6m to £255.73m. Earnings per share increased 31 per cent to 37.9p, and a final dividend of

11.5p makes a total of 15.2p (12.55p).

COMMENT
The decision to become a contractor developer is starting to pay-off as the first schemes are completed and sold. The arrangements allow Rush & Tompkins to bite at the cherry - a fee for the contracting work and a share in the development profits when the project is sold. The timing of completions means that profits from disposals should flow through more strongly this year. A wide regional spread of properties should assist the group and provide some measure of stability as individual property markets reach their peak over the next 18 months.

The link with Hochtief will also provide opportunities for property joint ventures on the Continent ahead of 1992. This year should see further growth in profits to about £12m which would put the group on a prospective p/e of 7.5. That looks a little cheap compared with some property/contracting companies which, unlike Rush & Tompkins, are exposed to the UK housing market.

GKN acquires Australian folding scaffold system

GKN, the automotive components and engineering group, is expanding its Australian building services operations by acquiring the Preston folding scaffold system for £3.27m.

The system, developed four years ago for major construction and refurbishment projects, was designed and marketed by Preston Erection.

The modular construction of the system represents a significant change in the industry, moving from equipment such as poles and staging, which require labour intensive assembly, to large prefabricated sections that are lifted into position by crane.

GKN plans to develop the Preston system through its GKN Kwikform division by introducing it throughout Australia at the earliest opportunity. GKN Kwikform has an annual turnover of about £47m.

Carlton plans sale of base companies for £16m

By Raymond Sweeney

CARLTON Communications, the television services group, is to sell some of the companies on which the early foundations of its business were based.

Carlton, which has recently been holding exploratory talks on a possible takeover of Thames Television, yesterday said that it was selling Carlton Fox, Carlton Studios and related companies to Stanco Exhibition Group for a total consideration of £16.2m.

Fox and Studios and their subsidiaries are involved in three-dimensional and graphic design, exhibition stand fitting, photographic and laboratory services.

Mr Bob Phillips, group managing director, said the companies being sold "are no longer part of the core business of the Carlton group although they are 'related' and solidly structured". The sale is being negotiated in new Stanco shares, some of which will be placed to raise £6m cash with Carlton agreeing to hold the balance for two years.

The shares retained by Carlton amount to 23.1 per cent of the Stanco group. The Stanco group whose assets include the supply of exhibition stands, interior shopfitting and factory and office reception fitting.

Mr John Friswell, Stanco chairman, said yesterday that the deal took the company into new and complementary growth areas.

CEI in £5.5m expansion

CAMBRIDGE Electronic Instrumentation, the component and instrumentation group, is acquiring Uniflex Health Care, CEI acquiring 22.5 per cent of the privately-owned group, plus an amount equal to the value of Uniflex's cash balance, estimated at about £2.7m.

Universal owns Rigel Research, a Surrey-based company which manufactures patient monitoring and safety testing equipment.

For the 15 months to June 30 1988, Rigel reported net profits before tax of £500,000 on sales of £2.2m. Net tangible assets amounted to £900,000.

CEI lifted 1988 pre-tax profits by 19 per cent from £12.55m to £14.8m on turnover of £172.55m.

Electron House profits soar 79% to £4.8m

By Edward Susman

ELECTRON HOUSE, computer products and electronic components distributor, said pre-tax profits rose 79 per cent in the year to May 31, as the group's market share grew and its product mix improved.

Pre-tax profits reached £4.8m (£2.7m) as sales jumped 61 per cent from £56.8m to £91.8m. Mr Robert Leigh, chairman, said 43 per cent of the increase in sales was attributable to organic growth. The shares gained 1p to 152p.

The group has expanded greatly in recent years as a result of an aggressive acquisition strategy. Most recently, the group merged its US subsidiary Pacesetter with electronics distributor Almo in exchange for a 44 per cent stake in the newly created Electron House Inc. Last summer, the group bought HB electronics for £2.3m.

Sales remained heavily based in the UK and southern Ireland, with computer products and systems in these areas accounting for £44.8m (£26.9m) and electronic components registering £39.8m (£18.9m). North America, excluding ten weeks of revenue from Electron House Inc, saw a dip in sales from £4.5m to £2.7m. Electron House Inc contributed £7.5m in the ten weeks to May 31.

Mr Leigh said the group is targeting continental Europe, where it currently has no operations, for new acquisitions.

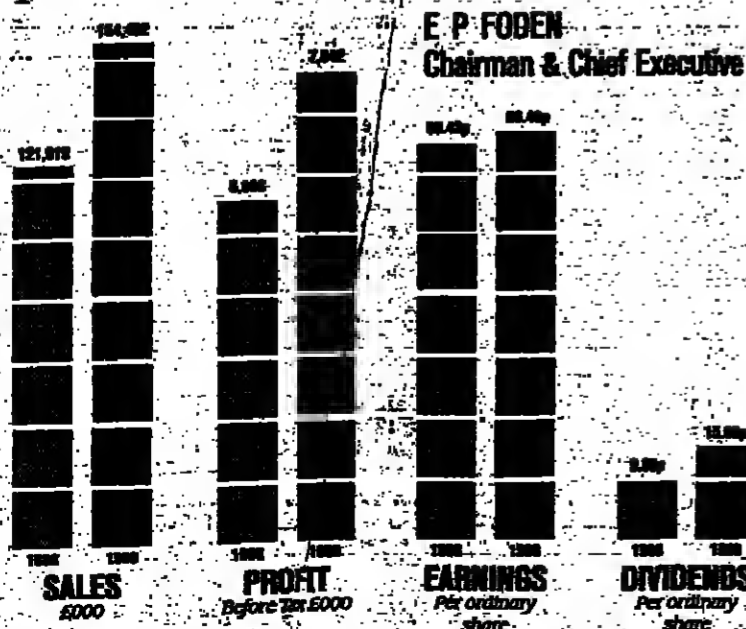
Earnings per share rose by 36 per cent from 12.75p to 17.59p as the tax charge grew to £1.4m (£1.07m). A final dividend of 3.3p makes a year total of 5.6p (4.5p).

COMMENT
Electron House complains that its historical p/e of about 8.5 puts it well below the average of 12 for its competitors. The market is still stung by memories of a hefty tax charge that cut into the bottom line three years ago and questions about just how the acquisition-minded group has managed to sustain such strong organic growth. Easy enough to explain, Electron House says: a solid management structure backed by a diverse group of products. Analysts are starting to agree, although with gearing near 50 per cent and the market uncomfortable with the idea of Electron House issuing more new paper, acquisitions of the sort that have transformed the group since its USM listing in 1985 will be more difficult. Pre-tax profits of £4m for 1989 give a prospective multiple of about 7, which is likely to come closer to sector's average.

ERF (Holdings) plc

"I can report record Group profits and turnover once again. We have built on the progress of the last few years with record UK factory deliveries, up 33% on the previous year."

E. P. FODEN
Chairman & Chief Executive



(ERF (Holdings) plc, Annual Report and Accounts posted to shareholders on 17 July 1988. It is available from the Secretary, ERF (Holdings) plc, Sun Works, Sandbach, Cheshire CW11 0RN.)

IN BRIEF

G A SPERATI (The Special Agency): Pre-tax profits £20,782 (£8,864) for six months to end-April 1989. Turnover £385,938 (£244,672). Earnings per 50p share 12.15p (8.36p). The company, a button and trimming merchant, last paid a dividend in 1980.

BARDSEY has exchanged contracts for the sale to Allied Industrial Estates of a freehold site in Salford for a total consideration of £2.5m.

HALLS HOMES & Gardens has acquired Hallmarked Building, a subsidiary of Maldstone Trading, for £1.8m to be satisfied by the issue of 1.2m shares in Halls, representing 10.3 per cent of the enlarged equity.

IMI has expanded its interests in the air conditioning industry via the acquisition of Atholl from Motherwell Bridge Holdings. Consideration was £2.25m cash.

TALBEX has received an approach by the management of James Warren Holdings, its subsidiary company through which the group's property development activities are carried on. It is expected that negotiations for the sale of James Warren would also cover the assets owned by United Mining, another subsidiary company.

Yearlings

The interest rate for this week's issue of local authority bonds is 13 1/2 per cent, up 1/2 of a percentage point from the last issue two months ago. There is no comparative figure from a year ago. The bonds are issued at par and are redeemable on July 25 1990.

A full list of issues will be published in tomorrow's edition.

TARGET TRUST MANAGERS LIMITED

Following the adoption of the schemes of amalgamation of Target Equity Exempt Fund and Target Special Situations Fund with Target UK Capital Fund, the former holders of Target Equity Exempt Fund and Target Special Situations Fund will receive the following allocation of units in Target UK Capital Fund for each unit held at 13th July 1989:

Target Equity Exempt Fund Income Units - 1.3293902356 of an Income Unit
Target Equity Exempt Fund Accumulation Units - 2.5663519563 of an Income Unit
Target Special Situations Fund - 0.9845104980 of an Income Unit

Allocations will be made to the nearest thousandth of a unit. Certificates in respect of the new holdings in Target UK Capital Fund will be despatched in due course.

INVESTORS IN INDUSTRY GROUP PLC.

Inc. in England under the Companies Act 1948 to 1967, Reg. No. 1142830

£75,000,000 Floating Rate Notes 1994

For the three month period 17th July, 1989 to 17th October, 1989.

In accordance with the provisions of the Notes, notice is hereby given that the rate of interest has been fixed at 14 1/4 per cent per annum and that the interest payable on the relevant interest payment date, 17th October, 1989, against Coupon No. 20 will be £1,772.26 from Notes of £50,000 nominal and £1,772.23 from Notes of £5,000 nominal.

S.G. Warburg & Co. Ltd. (Agent Bank)

COMMODITIES AND AGRICULTURE

Colombia seeks ways to increase coffee exports

By Sarita Kendall in Bogota

THE Colombian Government and Federacafe, the coffee growers' federation, are searching for further policy changes to get the country's coffee exports moving following the recent collapse of the International Coffee Agreement...

ning at 24 per cent a year) to erode the real value of the domestic support price. Normally the price is upgraded once or twice a year to keep it abreast of inflation.

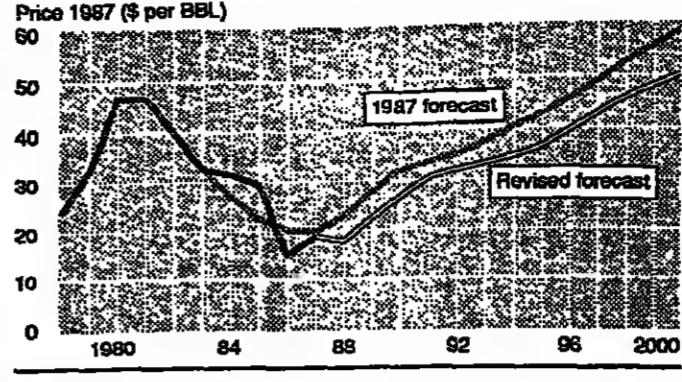
fee's "quality premium" over Central American mills, used to determine the foreign exchange deposits required on exports, has apparently had little effect on the market.

Oil 'may reach \$50 a barrel this century'

By Max Wilkinson, Resources Editor

WORLD OIL prices will rise steadily during the next decade, perhaps reaching \$50-a-barrel by the year 2000, according to the latest forecast from the Harvard University Energy and Environmental Policy Centre in the US.

Harvard oil price projections



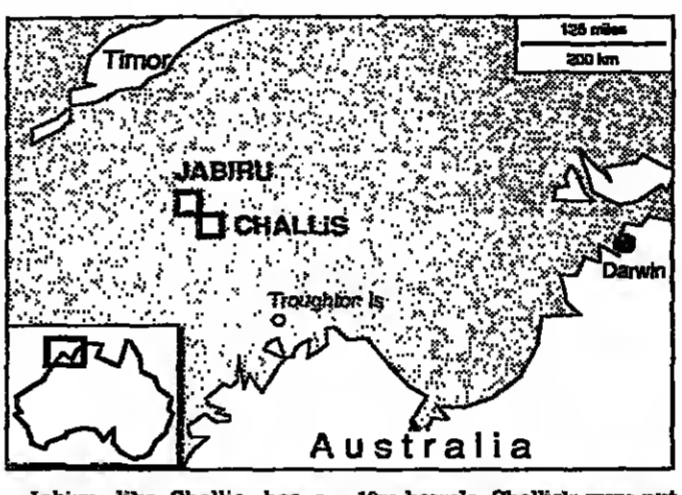
Organisation of Petroleum Exporting Countries. Critics said his computer model underestimated the extent to which the world would continue with measures to conserve oil consumption, even when prices were relatively low.

opened in the early 1980s, a trend which the official forecast assumed would continue. The Harvard forecast has now been re-worked with different assumptions. These include the possibility that a once-and-for-all shift in expenditures on conservation took place in the 1980s after which previous patterns of behaviour in relation to oil prices were reasserted...

Australian 'North Sea' finally comes of age

Chris Sherwell reports on the growing importance of the oilfields of the Timor Sea

SOMETIME IN the next two months, at a remote spot in the middle of the Timor Sea, a giant 115,000-tonne rectangular barge will be carefully attached to a massive "steel" fixed platform...



Jabiru, like Challis, has a novel "riser". But instead of being fixed, it floats, like a giant steel test tube with lead in its base. Beneath the riser stretch to the sub-sea wells. Atop, it is hooked to a 140,000-tonne detachable oil storage tanker, called the Jabiru Venture.

involved in oil through the Bass Strait operations. However, Esso is the operator there and BHP has been something of a passenger. Jabiru and Challis have changed that. Of BHP Petroleum's overall net profit of \$533m for the year to May, some \$460m came from the Timor Sea.

Salmon farmers 'must curb production'

By Karen Fossell in Oslo

NORWAY'S fish farmers will have to self-regulate annual salmon production volumes in order to keep in step with lower market growth, according to Mr Odd Berg, an official with the Norwegian Fish Farmers' Sales Organisation.

are steadily declining. For example, in 1988 Norway farmed about 80,000 tonnes of fish at Nkr429 per kilogramme compared with 28,000 tonnes in 1985 at Nkr44 per kilogramme.

holding a designated volume of fish until the following year. This would require a commitment to reduce the number of young salmon introduced into the farms. It has also been suggested that up to 30,000 tonnes be processed as animal meal.

WEEKLY METALS PRICES

Table listing weekly metal prices for various commodities including Antimony, Bismuth, Cadmium, Cobalt, Europium, Gadolinium, and Selenium. Columns include item name, unit, and price range.

Table listing weekly metal prices for various commodities including Europium, Vanadium, and others. Columns include item name, unit, and price range.

WORLD COMMODITIES PRICES

LONDON MARKETS

Table of London market prices for various commodities including metals, oil, and agricultural products. Columns include item name, unit, and price.

COCOA

Table of cocoa prices showing close, previous, and high/low values for various grades.

COPPER

Table of copper prices showing close, previous, and high/low values.

SPOT MARKETS

Table of spot market prices for various commodities including oil, sugar, and other goods.

CRUDE OIL

Table of crude oil prices showing close, previous, and high/low values for different grades.

LONDON METAL EXCHANGE

Table of London metal exchange prices for various metals including aluminum, copper, and zinc.

POTATOES

Table of potato prices showing close, previous, and high/low values.

SOYABEAN MEAL

Table of soyabean meal prices showing close, previous, and high/low values.

FRUIT

Table of fruit prices showing close, previous, and high/low values.

CRUDE OIL

Table of crude oil prices showing close, previous, and high/low values.

US MARKETS

IN THE METALS, gold, silver and platinum prices remained unaffected by the latest US trade figures, reports Drexel Burnham Lambert. Gold remained steady while silver edged lower in quiet dealings...

NEW YORK

Table of New York market prices for various commodities including oil, sugar, and other goods.

PLATINUM

Table of platinum prices showing close, previous, and high/low values.

SILVER

Table of silver prices showing close, previous, and high/low values.

CHICAGO

Table of Chicago market prices for various commodities including soybeans, wheat, and other goods.

WHEAT

Table of wheat prices showing close, previous, and high/low values.

SOYBEANS

Table of soybean prices showing close, previous, and high/low values.

US MARKETS

Table of US market prices for various commodities including oil, sugar, and other goods.

NEW YORK

Table of New York market prices for various commodities including oil, sugar, and other goods.

PLATINUM

Table of platinum prices showing close, previous, and high/low values.

SILVER

Table of silver prices showing close, previous, and high/low values.

CHICAGO

Table of Chicago market prices for various commodities including soybeans, wheat, and other goods.

WHEAT

Table of wheat prices showing close, previous, and high/low values.

SOYBEANS

Table of soybean prices showing close, previous, and high/low values.



Seven-session rise in equities stalls

Influences outside Britain brought the bull run in the UK equity market... The FT-SE 100-share index was finally upended and 1.5 off at 2,273.1.

unsettled by industrial unrest in the UK. Yesterday saw 436.5m shares traded, well short of Monday's equally disappointing level of 538.5m...

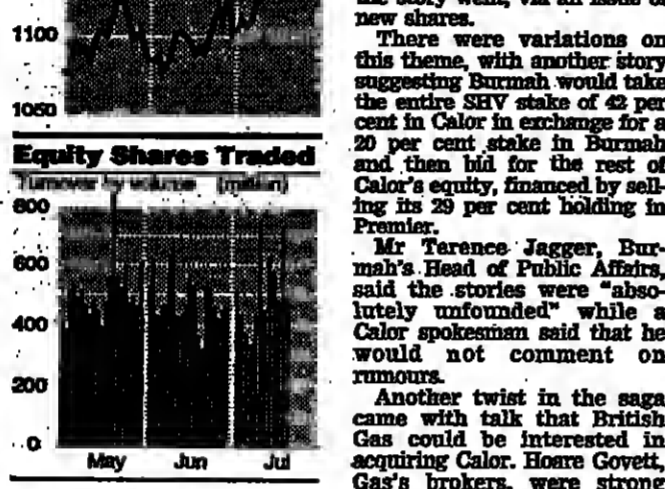
analyst said that the Wall Street market was "not so much different from ours, the institutions are short of cash and are too scared to be out of the market."

FINANCIAL TIMES STOCK INDICES table with columns for Government Bonds, Fixed Interest, Ordinary Shares, Gold Shares, FT-SE 100 Share, Ord. Div. Yield, P/E Ratio, and S.E. ACTIVITY.

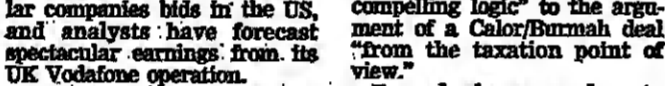
Late action in S and N

Scottish & Newcastle, the brewing and hotels group, took off in late trading on speculation that Australian group Elders Ltd had sold its near 24 per cent stake...

FT-A All-Share Index



Equity Shares Traded



TRADING VOLUME IN MAJOR STOCKS

Table listing trading volume for various major stocks including Anglo, BHP, British Airways, etc.

S.E. ACTIVITY

Table showing S.E. ACTIVITY for various companies like Gilt Edged, Equity, etc.

More Lomrohe stories: Lomrohe traded well, rising to 313p before closing 5 up on balance at 310p...

after in recent weeks, especially by US investors. The stock has received repeated upgradings on the back of cellular companies bids in the US...

least it is unlikely to be blocked by the Monopolies and Mergers Commission because there is little geographical overlap...

after 30p. The market believes a deal between British Aerospace and Arlington could be announced today.

Cautious statement: A cautious statement at the Cable & Wireless annual meeting quickly prompted Mr Jack Summerscale, who heads the electrical research team at EZW...

NEW HIGHS AND LOWS FOR 1989: Lists new highs and lows for various companies like Anglo, BHP, British Airways, etc.

FT LAW REPORTS

Revenue US bond decision stands

advisers sought confirmation of Revenue officials that gains on disposal, end year revaluation, or redemption of US or Canadian index-linked bonds would be treated as capital gains...

Product development chief, Ford Europe

Mr John Oldfield has been appointed vice president, product development, for FORD OF EUROPE, from August 1. He was executive director in charge of product development programmes...

APPOINTMENTS

Mr Peter C. Axten (above) has been appointed chief executive of CITIC's financial services operations in Europe from September 1. He will be responsible for the continued development of the UK financial services activities...

Handwritten note in Arabic script: سوقنا من الامل

صحة من الامن

FT UNIT TRUST INFORMATION SERVICE

Current Unit Trust Prices are available on FT Cityline. To obtain your free Unit Trust Code Booklet ring the FT Cityline help desk on 01-925-2128

Main table containing unit trust information, including columns for company names, unit prices, and other financial data. Includes sub-sections for 'OTHER UK UNIT TRUSTS' and 'INSURANCES'.

INSURANCES

Table listing insurance companies and their unit prices, including AA Friendly Society, Abbey Life Assurance Co Ltd, and others.

Main table of unit trusts, organized by company name and unit price. Includes various trust names like 'Windsor Trust', 'Wright Selwyn Fund', 'The Yorkshire Unit Trust', etc.

FT UNIT TRUST INFORMATION SERVICE

Current Unit Trust Prices are available on FT Cityline. To obtain your free Unit Trust Code Booklet ring the FT Cityline help desk on 01-625-2128

Main table containing unit trust information with columns for Name, Price, Yield, and other financial metrics. Includes sub-sections for 'OFFSHORE AND OVERSEAS', 'MANAGEMENT SERVICES', 'GUERNSEY (SIB RECOGNISED)', 'LUXEMBOURG (SIB RECOGNISED)', and 'JERSEY (SIB RECOGNISED)'.

OFFSHORE AND OVERSEAS

MANAGEMENT SERVICES

GUERNSEY (SIB RECOGNISED)

LUXEMBOURG (SIB RECOGNISED)

JERSEY (SIB RECOGNISED)

JERSEY (**)

صكوك من الاموال

FT UNIT TRUST INFORMATION SERVICE

Table containing FT Unit Trust Information Service data, including columns for fund names, prices, and performance metrics. Sub-sections include 'ISLE OF MAN', 'LUXEMBOURG', and 'OTHER OFFSHORE FUNDS'.

LONDON SHARE SERVICE

Table containing London Share Service data, including columns for fund names, prices, and performance metrics. Sub-sections include 'BRITISH FUNDS', 'COMMONWEALTH & AFRICAN FUNDS', 'FOREIGN BONDS & RAILS', 'AMERICANS', 'Money Market Bank Accounts', and 'Money Market Trust Funds'.

NOTES: Gross rates to three decimal places... UNIT TRUSTS: Prices are in pence unless otherwise stated...

LONDON SHARE SERVICE

Latest Share Prices available on FT Cityline. To obtain your free Share Code Booklet ring the FT Cityline help desk on 01-825-2128

Main table containing various stock market listings categorized by industry: AMERICANS - Contd, BUILDING, TIMBER, ROADS, DRAPERY AND STORES - Contd, ENGINEERING - Contd, INDUSTRIALS (Miscel.) - Contd, CANADIANS, BANKS, HP & LEASING, CHEMICALS, PLASTICS, FOOD, GROCERIES, ETC, BEERS, WINES & SPIRITS, HOTELS AND CATERERS, INSURANCES, and ENGINEERING. Each entry includes company name, price, and other financial data.

صكرا من الامل

WORLD STOCK MARKETS

Table of stock market data for various countries including Austria, France, Germany, Italy, and Sweden. Columns include stock names, prices, and changes.

Table of stock market data for Japan, including various stock listings and their performance metrics.

Table of stock market data for Canada, featuring the Toronto 200 index and a list of individual stock prices.

Table of financial indices including New York Dow Jones, Standard and Poors, and various international indices.

Table of stock market data for Australia, listing various stocks and their current market values.

Table of stock market data for New York Active Stocks, showing trading activity and price changes.

Table of stock market data for Tokyo, listing active stocks and their performance.

Advertisement for Financial Times featuring a tire image and the slogan 'To keep the world in focus...'. Includes contact information for the US and Canada.

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

Main table containing stock prices, organized into columns with headers like '12 Month High', 'Low', 'Open', 'Close', 'Change', and 'Volume'. Includes sub-sections for '3pm prices July 18' and 'NYSE Composite'.

سوق الأوراق المالية

NYSE COMPOSITE PRICES

Table of NYSE Composite Prices with columns for 12 Month High, Low, Stock, Div. Yld. %, P/E, and various price points.

OVER-THE-COUNTER

Nasdaq national market, 3pm prices July 13

Table of Over-the-Counter prices with columns for Stock, Div. Yld. %, P/E, and various price points.

AMEX COMPOSITE PRICES

3pm prices July 18

Table of AMEX Composite Prices with columns for 12 Month High, Low, Stock, Div. Yld. %, P/E, and various price points.

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It's attention to detail. All the way from the financial times to the... HAWT REGISTRY OF BRUSSELS

AMERICA

May import figures encourage profit-taking

Wall Street

A JUMP in imports to record levels in May encouraged some profit-taking in the equity market yesterday morning...

revised shortfall of \$8.3bn in April put pressure on prices immediately after the figures were released...

remain centre stage and the trade figures did little to undermine those hopes. A focus for the equity market were results from IBM...

a-share tender offer and to increase its stake to 67 per cent. Dow fell 1 1/4 to \$87 1/2. B F Goodrich, which had risen strongly on Monday...

to 7 1/4% on news that a group including the ever-active Robert M Bass Group had built up a 7 per cent stake in the company as an investment.

Canada SELLING pressure sent stocks lower, following a higher-than-expected May US trade deficit...

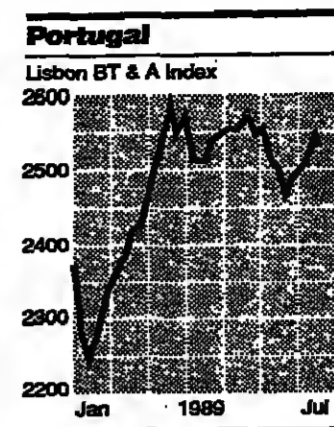
SOUTH AFRICA

THE BELIEF that the balloon price was set to rebound from its current lows lifted gold shares in Johannesburg in cautious trading.

Foreign investors keep a watchful eye on Portugal

A programme of privatisations is stirring interest in the emerging market, writes Alison Maitland

SPANIARDS may have dominated the two large privatisation issues in Portugal this year, but they are not the only foreigners with a keen eye on the potential of the Lisbon and Oporto stock markets.



Illiquid nature of the market. "You have to have extremely good contacts in the market to get hold of shares at the right price and the right time," says Mr Rodrigo Guimaraes of the Portuguese team at brokers Carnegie International.

Although the number of listed companies has quadrupled to around 170 since 1986, thanks to tax incentives, only some 50 of them can be traded with ease.

Market capitalisation at the end of 1988 was just \$7.2bn, less than that of Thailand, while the value of shares traded in Lisbon last year was less than that of the Philippines market, according to International Finance Corporation figures.

The privatisation programme, with two insurance companies next on the menu, is intended both to reduce Portugal's huge public debt and to swell volume on the market.

But Mr Guimaraes argues that the auction system used in the privatisations has pushed share prices of the new entrants so high that they, too, are difficult to trade.

UK, French, West German and US interest has also been growing. Mr Jamie Stewart of Baring Securities estimates that 65 to 70 per cent of the current inflow of money into Portuguese stocks is coming from overseas institutions, with about 15 per cent from domestic funds and the rest from local and foreign individuals.

The main obstacle to more rapid growth appears to be the reminder that the stock exchange is there in terms of marketing, it's a fantastic instrument.

He is optimistic about the long-term potential, arguing that capitalisation will double in two years and that more institutions will invest and more companies seek listings.

Pension fund managers in Portugal have only between 2 and 5 per cent of their \$500m worth of funds invested in equities. With growing competition from experienced foreign rivals, he says, "I think we'll see a big move into equities in the next 12 months."

Meanwhile, foreign investment has increased in the past few months as it became clear that a mooted capital gains tax would be dropped. Settlement problems have been tackled and the only limits on foreign ownership of shares are in the privatisation issues, where the ceiling is 10 per cent.

Mr Stewart of Barings says the market offers value. "There is a great deal of difficulty in finding attractively valued situations in northern Europe."

Some investors have been wary about the country's high inflation and trade deficit. But there are also bright spots on the economic side, with forecast GDP growth of 4 to 4.5 per cent this year, and lower unit labour costs than anywhere else in western Europe.

Mr Tony Fwell of Corporate Broking Services, which specialises in emerging markets in Europe and South America, is also bullish about Portugal's potential. "In the run-up to 1992, Portugal will receive 20 per cent of European Community grants for infrastructure development and reform of the financial sector, creating investment opportunities potentially far more lucrative than in more developed economies... the market looks extremely undervalued."

Most brokers agree, however, that this is not a story about rapid short-term gains, but one of potential growth over two to three years as local confidence, shattered by the crash, gradually recovers.

EUROPE

Nervous bourses focus on American deficit

THE STATE of the US trade deficit worried European bourses yesterday and most share prices declined, writes Our Markets Staff.

PARIS closed lower in moderate volume after news of a wider-than-expected US trade deficit for May, but dealers said that the rise in the deficit was less important than indications, actual and impending, on American inflation.

Forecasts of a fall in the US inflation rate later this year were accompanied by the warning that there may be hiccups along the way. The French, accordingly, are waiting to see what today's US consumer price index statistics will reveal.

"All we need is a neutral international environment," said one observer yesterday. "Fundamentally, the French market is on an upward trend, we have arguably the best economic environment for the past 20 years, definitely the best since 1974."

The market, he said, is looking at revised French gross domestic product estimates showing growth rates of 3 1/4 per cent or more, and unemployment dropping below 10 per cent. "Intervally rates are tempting some investors into bonds," he said, "but we believe that equities will continue to compete for investors' money."

Dealers were further encouraged by the way that blue chips such as Peugeot, Paribas and St Gobain seem to be leading the market when it rallies. Yesterday's declines, meanwhile, saw the OMF 50 index down 1.99 at 500.47 and the CAC 40 index 9.02 lower at 1,757.40.

Agence Havas was the feature of the session but ended off its opening highs with a gain of FF22 to FF951. Dealers said that Havas's FF1.98bn capital increase, most of which was reserved for existing shareholders, had been oversubscribed.

MILAN started very strongly, but profit-taking emerged mid-morning to drag share prices lower, bringing to an end the bourse's eight-session run of rises.

The Comit index slipped 0.74 to 682.65. One analyst welcomed the decline, saying: "The market was simply going too fast - there will be maybe one or two days [of lower prices] and then there will be a good opportunity to buy again. Many shares closed again, only to fall back in the afternoon."

CIR, Mr Carlo De Benedetti's holding company, which has just raised its stake in electronics company Olivetti, was strong again, adding 1140 to 16,420 before falling back after hours to 16,290. Olivetti fell further in the wake of its one-for-10 rights issue announcement, closing 159 down at 16,481 before easing to 16,450.

Turnover was estimated to be more than 1,300bn, but below Monday's level.

NET PURCHASES by US investors of foreign equities rose by 21 per cent in the first quarter of this year, according to a report by the Securities Industry Association. In the same period, however, European and Asian investors were net sellers of American stock.

US net purchases of international equities rose to \$1.7bn, from \$1.4bn in the previous quarter. Turnover swelled to \$50.5bn worth of foreign shares traded, compared with \$43.6bn a quarter earlier.

The mid-session FAZ index fell 6.58 to 624.11 and the closing DAX index lost 3.34 to 1,520.65. Turnover shrank to DM4.39bn from Monday's DM4.19bn, with domestic participants responsible for much of the trend.

The trend towards weaker interest rates continued to buoy financial issues, with the insurance sector performing relatively well.

AMSTERDAM had a busier, but still quiet day with volume up from Ft 540m to Ft 860m. Dealers said that the market held up well to begin with, lifted by a further rise in the US dollar, but levelled off on the US trade figures.

The CBS tendency index closed 0.6 down at 125.5. Earnings held level at Ft 114.80 after peaking at Ft 118.20 on news of a 7.2 per cent rise in its June steel production figures.

The publisher VNU put on Ft 1 to Ft 198; its shares had been under strong pressure in the past week, due to sell recommendations from UK brokers.

MADRID weakened after earlier gains, following domestic trade figures showing a considerably higher deficit for the first six months of 1989. Dealers said, however, that the market had held up well in the circumstances, with the general index falling only 0.59 points to 302.20.

ZURICH was led higher by the chemical sector, which lifted shares off early lows. The Credit Suisse index gained 3.8 to 624.1.

BRUSSELS closed mainly mixed in a dull market. The cash market index lost 0.58 to 6,060.71. Steelmaker Cockeill eased Bf10 to Bf1064 on volume of 17,000 shares, after renewed reports that it is considering a capital increase.

OSLO share prices fell on profit-taking. Lower prices for Norway's North Sea oil also contributed to losses. The all-share index fell 2.38 to 510.58.

STOCKHOLM closed marginally higher after early losses in a dull market. The Affersvarlden General index closed up 0.2 at 1,271.2.

ASIA PACIFIC

Election doubts continue to cast shadow

Tokyo

EXTREME lassitude overcame the market again yesterday, as investors sat on the sidelines to await the outcome of the forthcoming national elections, forcing the Tokyo market lower in thin trading, writes Yuriko Mita in Tokyo.

The reverberations of Monday's trading, when volume shrank to its lowest this year, caused share prices to open down. Investors were not prepared to take positions before the release of US trade figures for May, due yesterday, so the market continued to fall, although it did regain some ground with support from small-lot buying.

The Nikkei average closed lower for the fifth day in a row, falling 112.49 to 33,343.73. The high was 33,465.50 and the low was 33,308.64.

Advances were outnumbered by declines, 223 to 62. Volume was slightly higher than Monday's 283m shares at 306.58. The Topix index of all-listed shares dropped 11.81 to 2,487.93

and, in London trading, the ISE/Nikkei 50 index fell 3.11 to 1,973.49.

Many investors shied away from the market in anticipation of the Upper House elections on Sunday, when the ruling Liberal Democratic Party is expected to register heavy losses.

The yen's weakness also contributed to investors' wariness. Fujita Tourist Enterprises, the leading operator of hotels and restaurants, scored an all-time high of Y3,970, np Y170. The buying enthusiasm for the stock was part of individual investors' moves to place small-lot orders for volatile, high-priced issues in order to take quick profits.

Investors also sought food issues, such as Calpis Food Industry, Calpis, which makes Oligo CC - a functional food that is aimed at preventing disease - reached a high for the year in morning trading on demand from foreign brokers. Calpis finished Y30 up at Y1,520.

Once again, brokers tried to boost interest in the sagging market by trading heavy-capital steels and shipbuilding issues, pushing them into the most active list. Their efforts, however, were not rewarded. Nippon Steel, the most actively traded, closed down Y6 at Y864, with a volume of 31.6m shares. NKK also dropped Y6 to Y802 with 12.69m shares changing hands.

In Osaka, the OSE average fell 212.05 to 62,857.95. Volume totalled 32m shares, up from Monday's 21m.

Roundup

MOST Asia Pacific markets closed little changed, although Taiwan's rebound continued. Typhoon Gordon restricted trading in Hong Kong.

AUSTRALIA closed slightly higher after profit-taking trimmed early gains. The All Ordinaries index rose 1.7 to 1,965.0 in turnover of 107m shares worth A\$168m. Share prices began to lose gains after the announcement of a balance of payments deficit for June of A\$1.63bn - at the higher end of analysts' pre-

dictions - and a record annual current account deficit of A\$17.74bn for the year ended last month.

Market leader BHP ended 2 cents lower at A\$9.36 after reaching A\$9.48 in the morning.

SINGAPORE absorbed a bout of profit-taking to close higher, as bargain-hunting and selected buying supported share prices. The Straits Times industrial index rose 2.61 to 1,361.61 in busy trading.

Turnover increased to 150m shares from the previous day's 139m. The financial sector performed well, as did Malaysian lower-priced issues and warrants.

HONG KONG was open for only one hour's trading because of the effects of Typhoon Gordon. The Hang Seng index rose 2.84 to 2,505.48.

TAIWAN rose for the third consecutive session, as volume picked up. Investors were encouraged by reports that the revised Banking Law would not apply in retrospect to investment firms that had solicited funds illegally.

NEW ISSUE

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JULY, 1989

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De Nationale Investeringsbank N.V.

(The Hague, The Netherlands)

7 3/8% Bonds 1989 Due 14th July, 1996

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Bank Mees & Hope NV BNP Capital Markets Limited

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J.P. Morgan Nederland N.V. Nederlandsche Middenstandsbank nv

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FT-ACTUARIES WORLD INDICES

Jointly compiled by The Financial Times Limited, Goldman, Sachs & Co., and County NatWest/Wood Mackenzie in conjunction with the Institute of Actuaries and the Faculty of Actuaries

Table with columns for National and Regional Markets, Monday July 17 1989, Friday July 14 1989, and Dollar Index. Rows list various countries and their stock indices, including Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, Singapore, South Africa, Spain, Sweden, Switzerland, United Kingdom, and USA.

Copyright, The Financial Times Limited, Goldman, Sachs & Co., and County NatWest Securities Limited, 1987. Latest prices were unavailable for this edition. Constituent changes 18/7/89: The market capitalisations of Adia, Forbo, Holderbank, Holzstoff, Miltron and Oerlikon-Burhle have been increased to reflect the addition of the Participation Certificate shares to the Swiss Index.